

APPENDIX 5.8G WIFI RF Test Data

Product Name: Automotive AI

Test Model: DGOK105

Environmental Conditions

Temperature:	23.8℃
Relative Humidity:	52%
ATM Pressure:	101.0 kPa
Test Engineer:	Leon Li
Supervised by:	Baret Wu



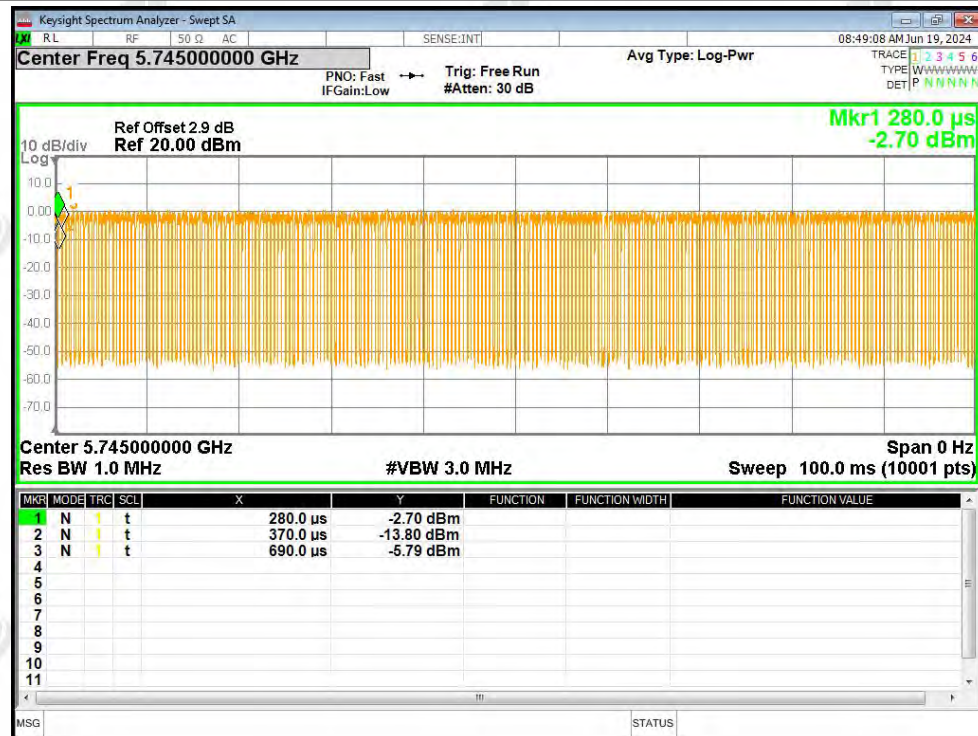
Duty Cycle

Condition	Mode	Frequency (MHz)	Antenna	Duty Cycle (%)	Correction Factor (dB)	1/T (kHz)
NVNT	a	5745	Ant1	78.05	1.08	3.13
NVNT	a	5785	Ant1	69.57	1.58	3.13
NVNT	a	5825	Ant1	71.11	1.48	3.13
NVNT	n20	5745	Ant1	94.5	0.25	0.53
NVNT	n20	5785	Ant1	96.45	0.16	0.53
NVNT	n20	5825	Ant1	96.45	0.16	0.53
NVNT	n40	5755	Ant1	86.11	0.65	1.08
NVNT	n40	5795	Ant1	90.38	0.44	1.06
NVNT	ac20	5745	Ant1	94.53	0.24	0.53
NVNT	ac20	5785	Ant1	91.35	0.39	0.53
NVNT	ac20	5825	Ant1	96.94	0.13	0.53
NVNT	ac40	5755	Ant1	90.38	0.44	1.06
NVNT	ac40	5795	Ant1	85.45	0.68	1.06
NVNT	ax20	5745	Ant1	92.95	0.32	0.69
NVNT	ax20	5785	Ant1	89.02	0.51	0.68
NVNT	ax20	5825	Ant1	90.63	0.43	0.69
NVNT	ax40	5755	Ant1	85.23	0.69	1.33
NVNT	ax40	5795	Ant1	81.32	0.9	1.35

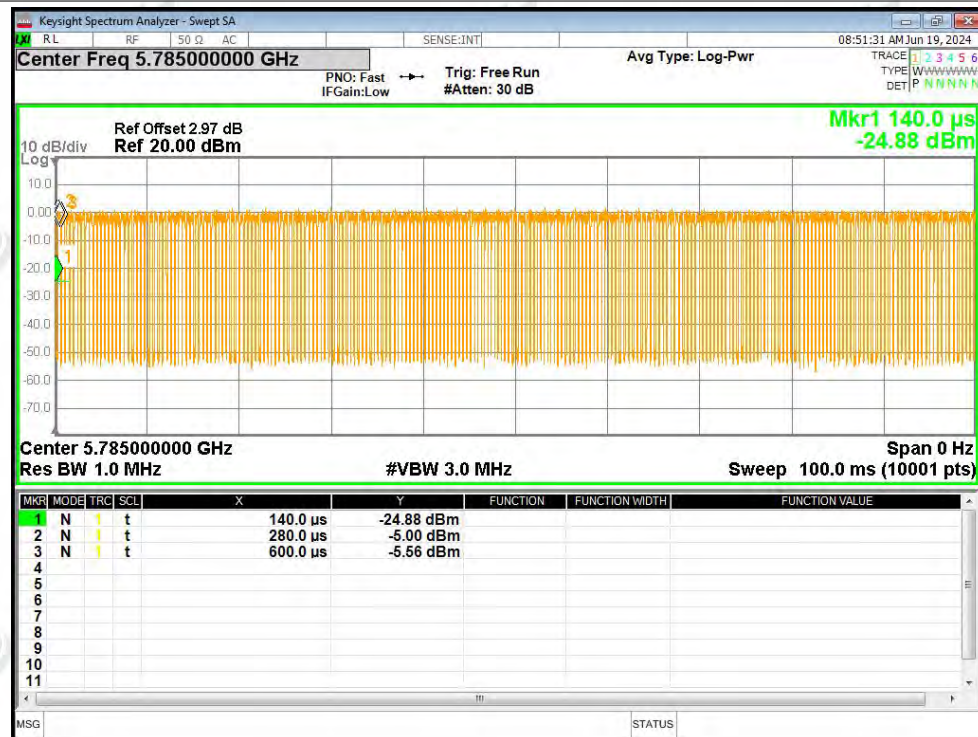


Test Graphs

Duty Cycle NVNT a 5745MHz Ant1

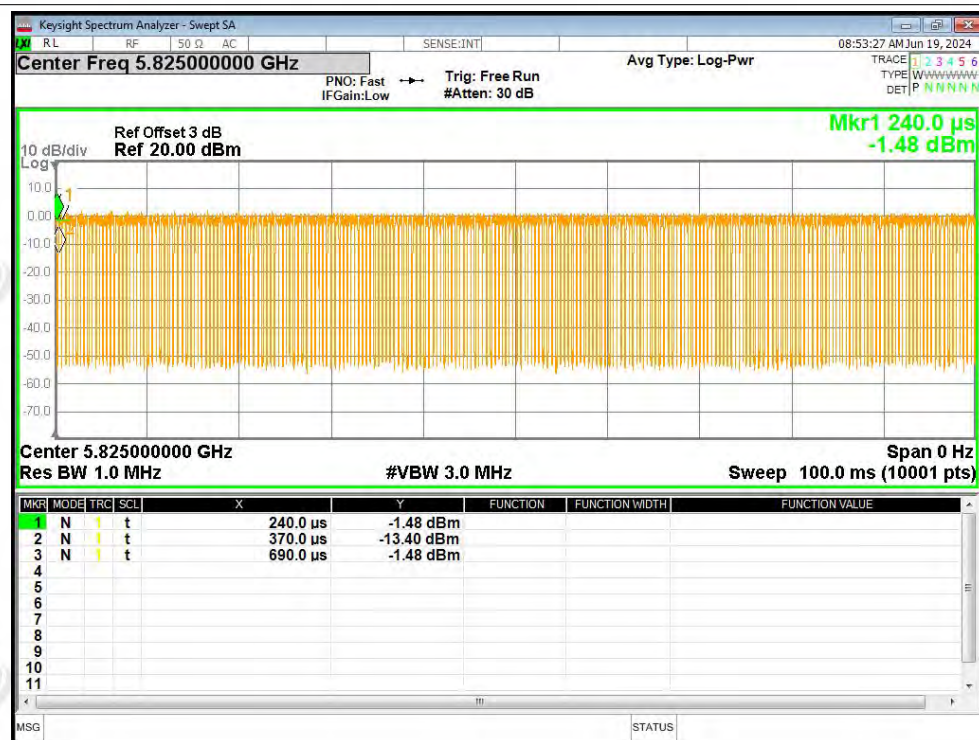


Duty Cycle NVNT a 5785MHz Ant1

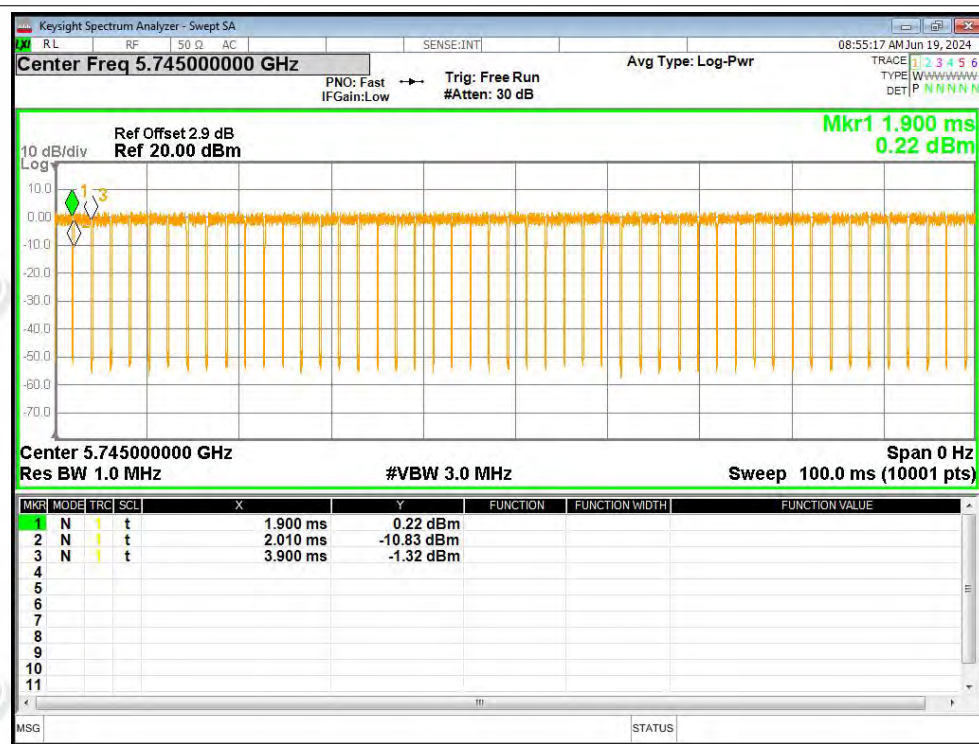




Duty Cycle NVNT a 5825MHz Ant1

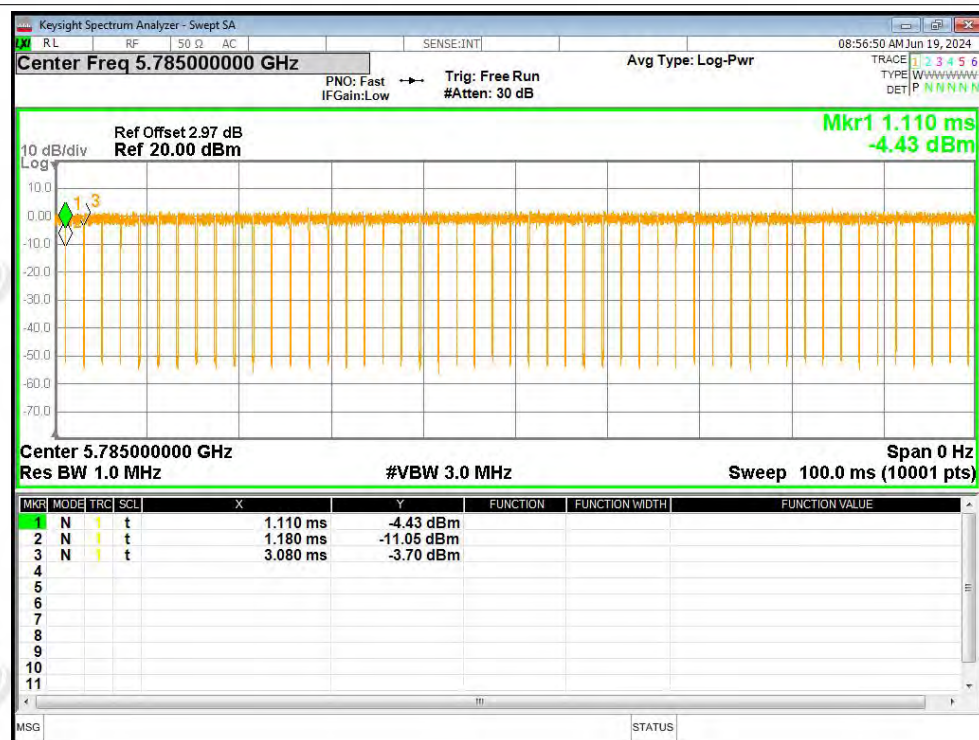


Duty Cycle NVNT n20 5745MHz Ant1

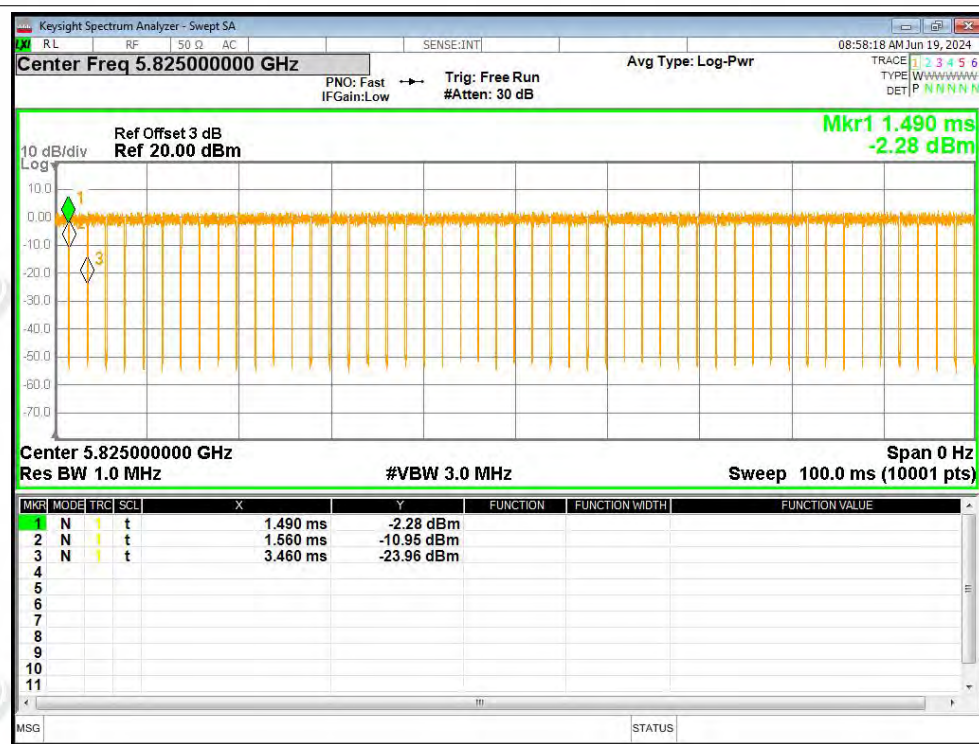




Duty Cycle NVNT n20 5785MHz Ant1

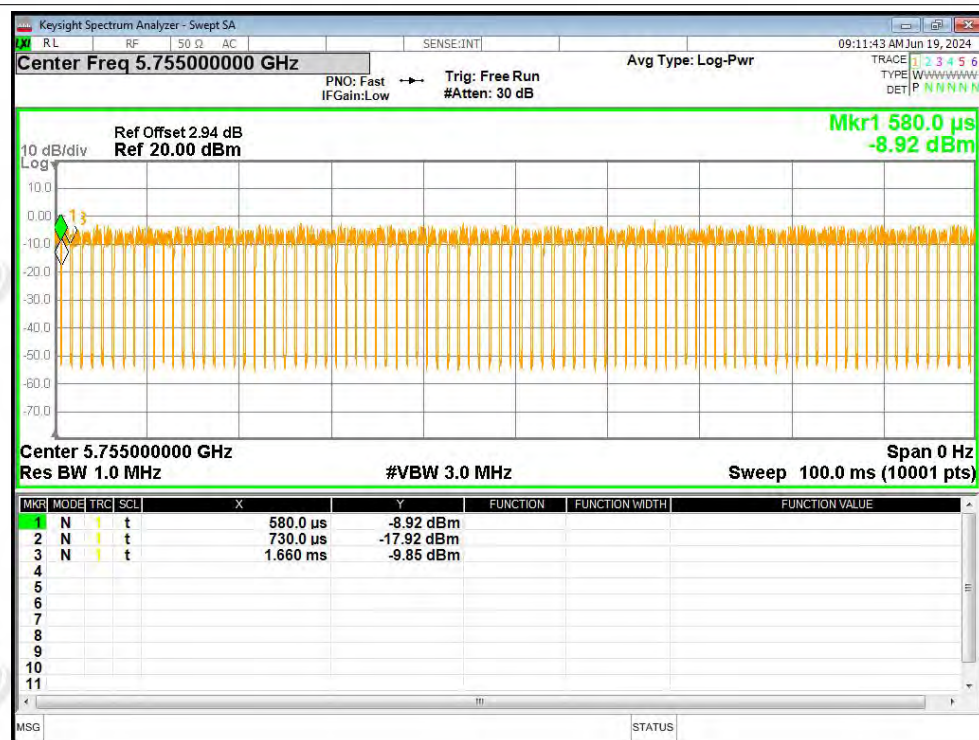


Duty Cycle NVNT n20 5825MHz Ant1

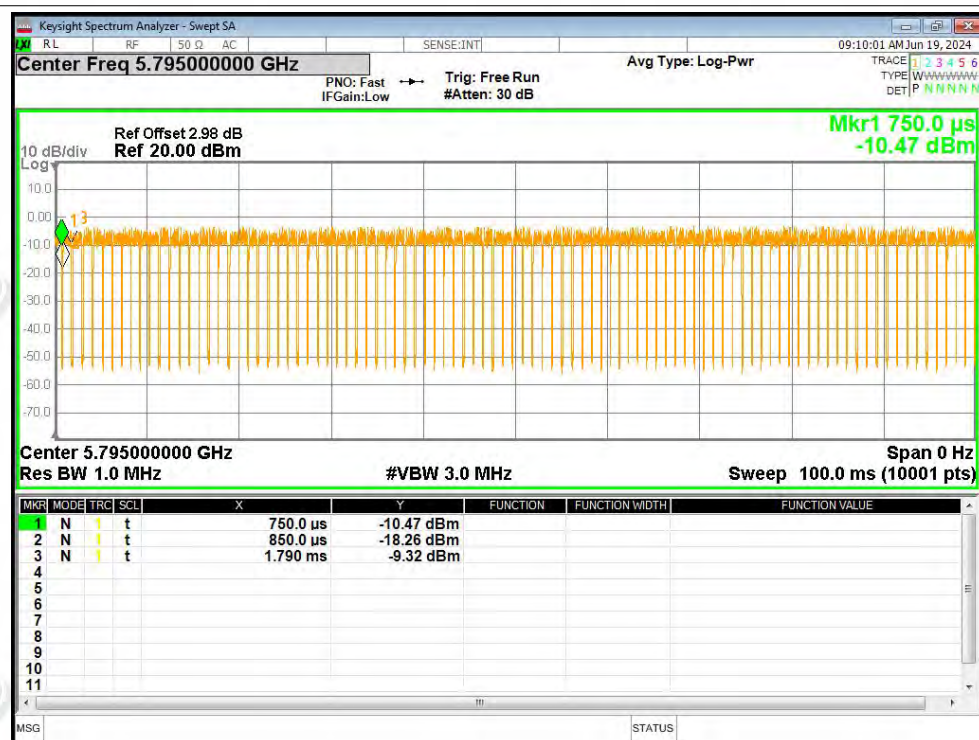




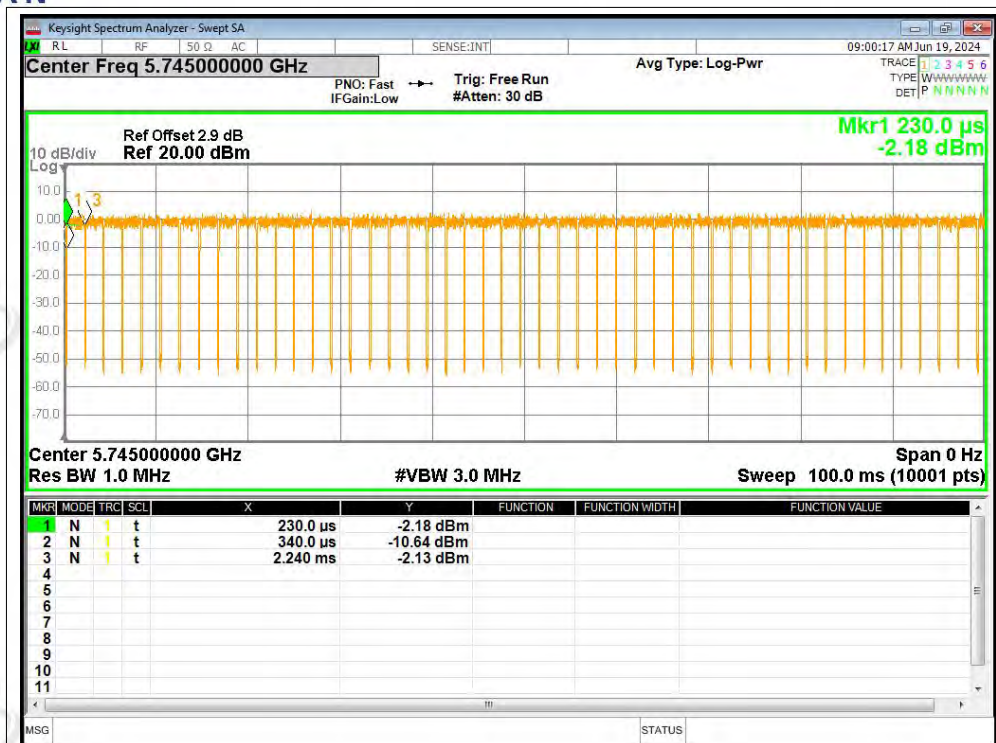
Duty Cycle NVNT n40 5755MHz Ant1



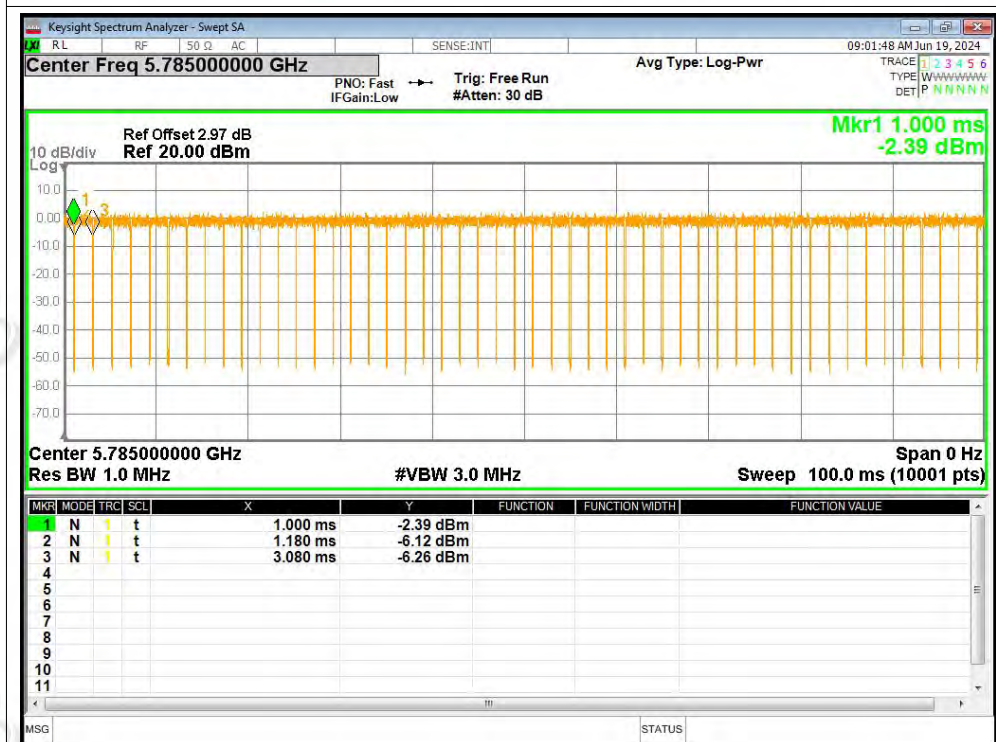
Duty Cycle NVNT n40 5795MHz Ant1



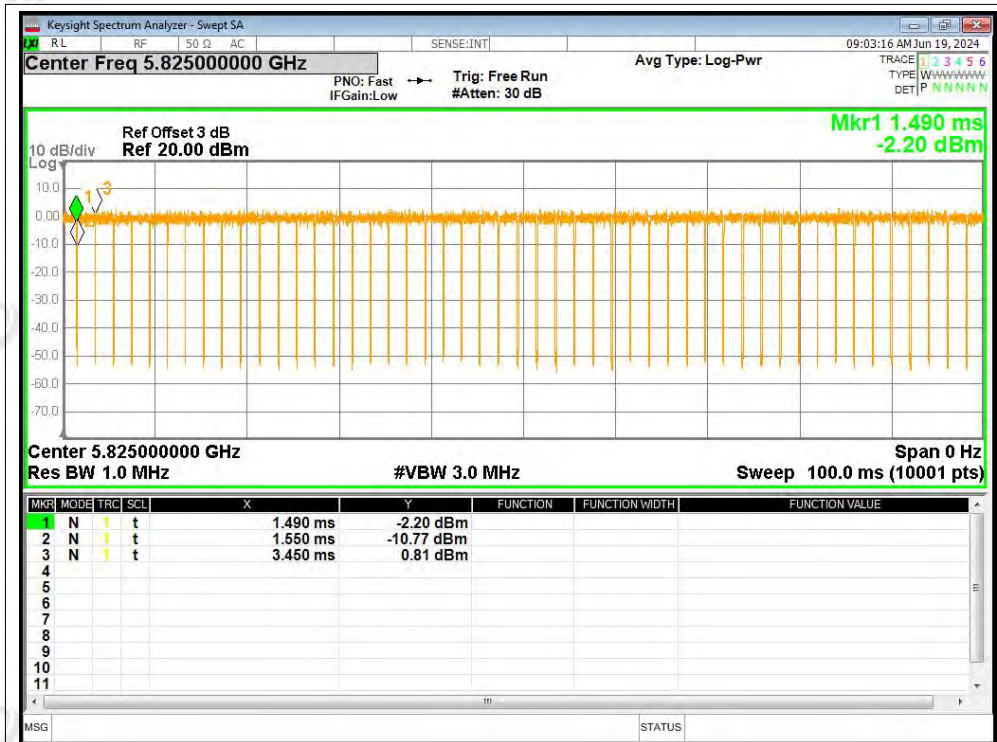
Duty Cycle NVNT ac20 5745MHz Ant1



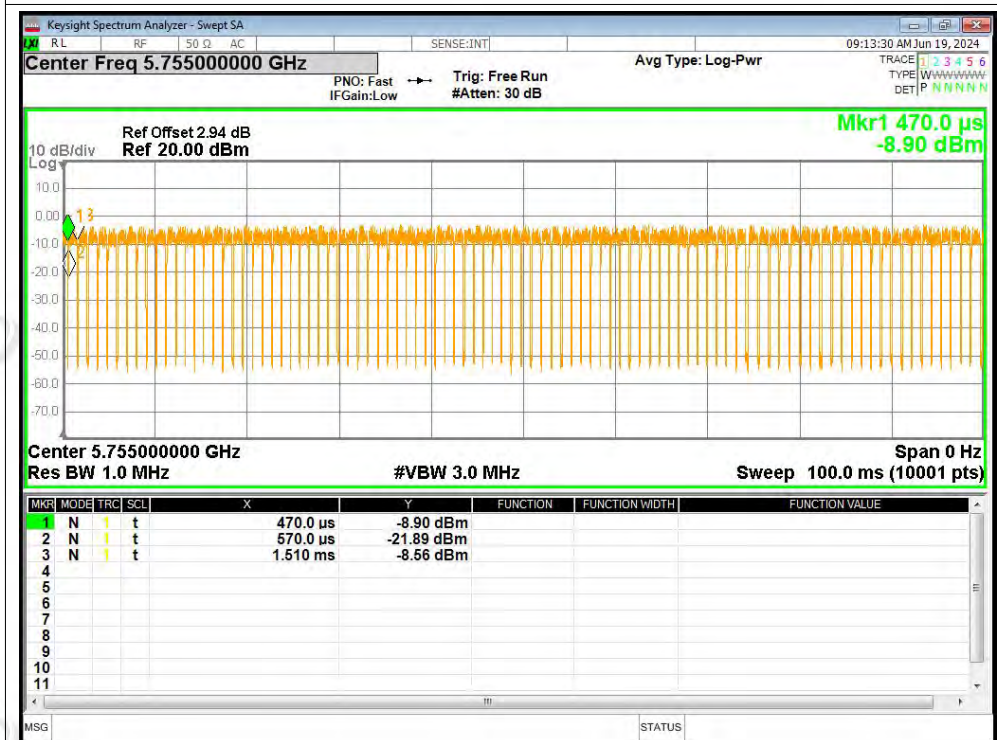
Duty Cycle NVNT ac20 5785MHz Ant1



Duty Cycle NVNT ac20 5825MHz Ant1



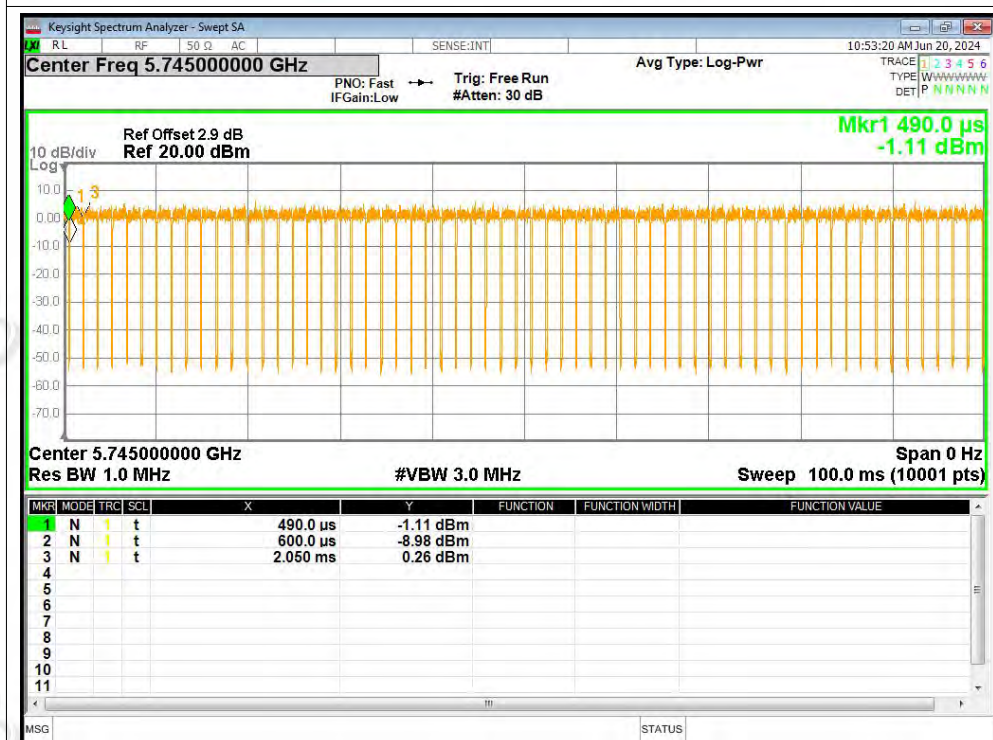
Duty Cycle NVNT ac40 5755MHz Ant1



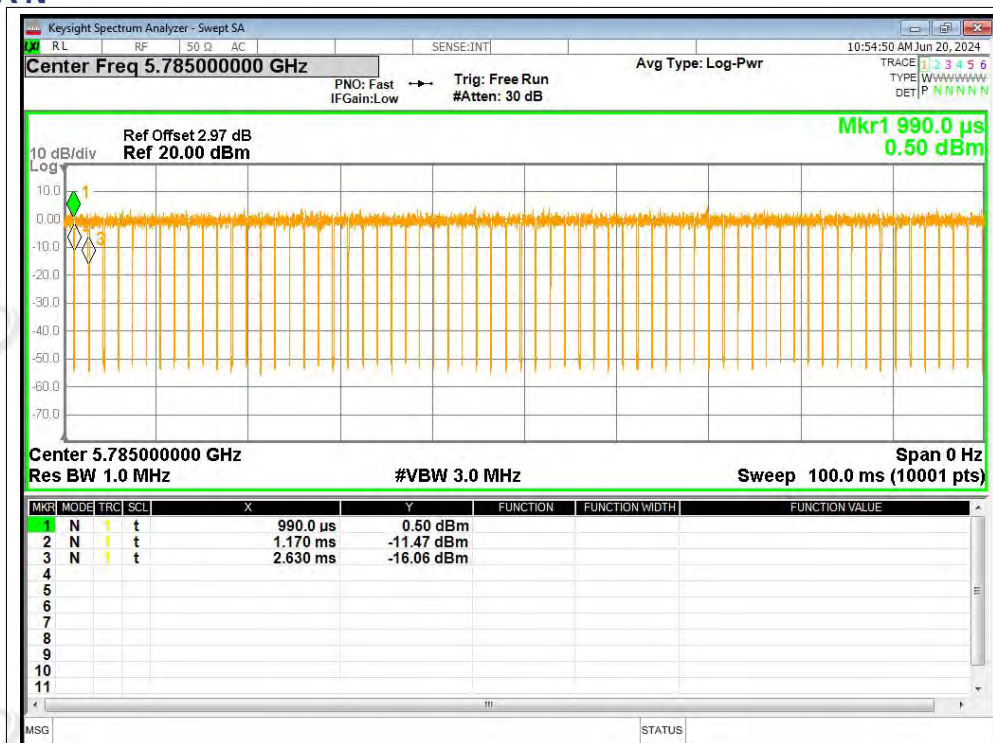
Duty Cycle NVNT ac40 5795MHz Ant1



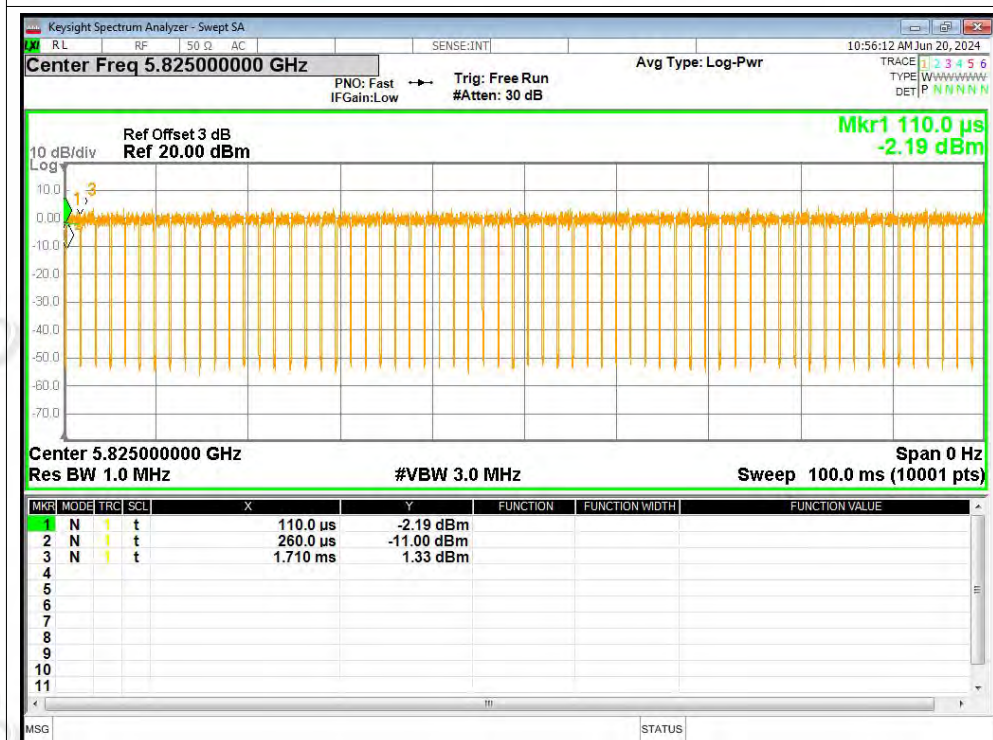
Duty Cycle NVNT ax20 5745MHz Ant1



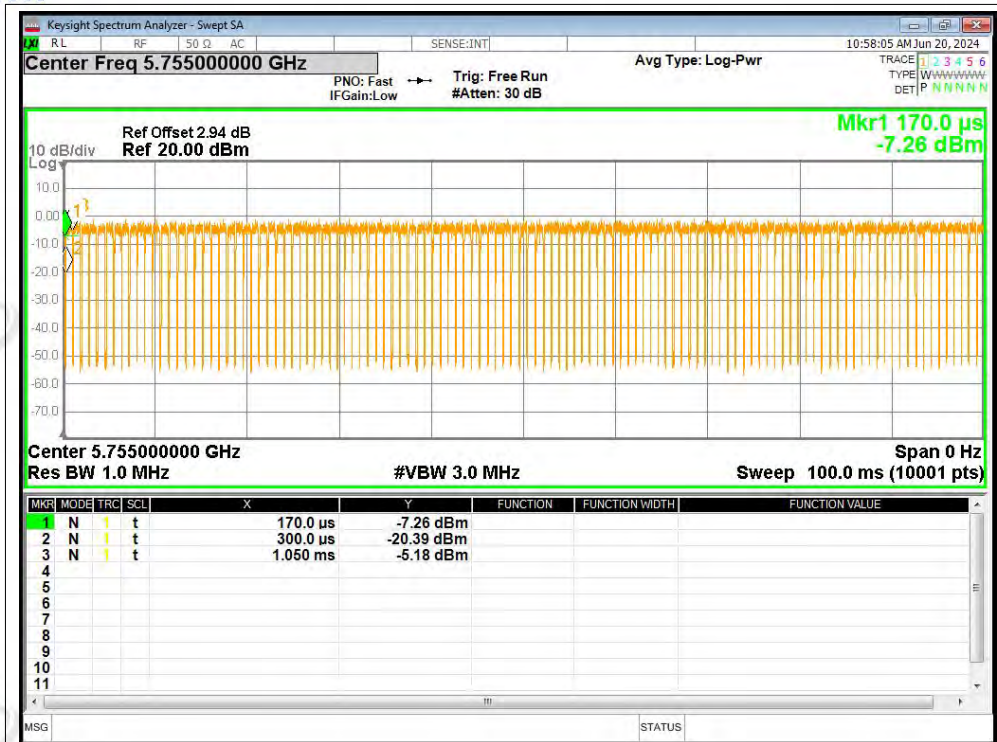
Duty Cycle NVNT ax20 5785MHz Ant1



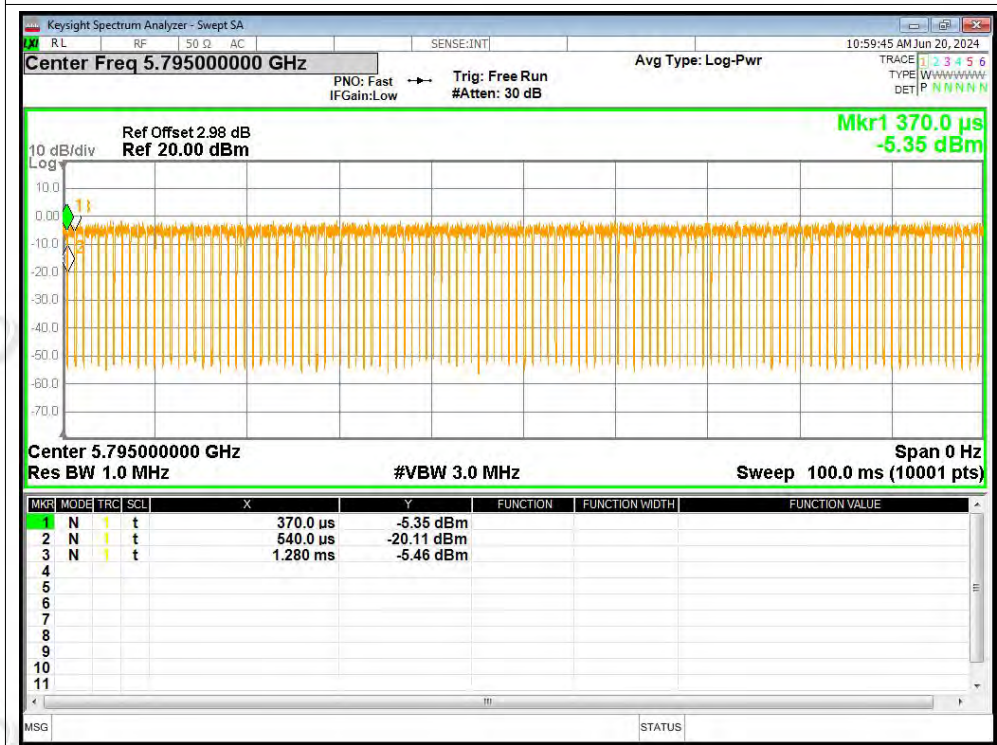
Duty Cycle NVNT ax20 5825MHz Ant1



Duty Cycle NVNT ax40 5755MHz Ant1



Duty Cycle NVNT ax40 5795MHz Ant1





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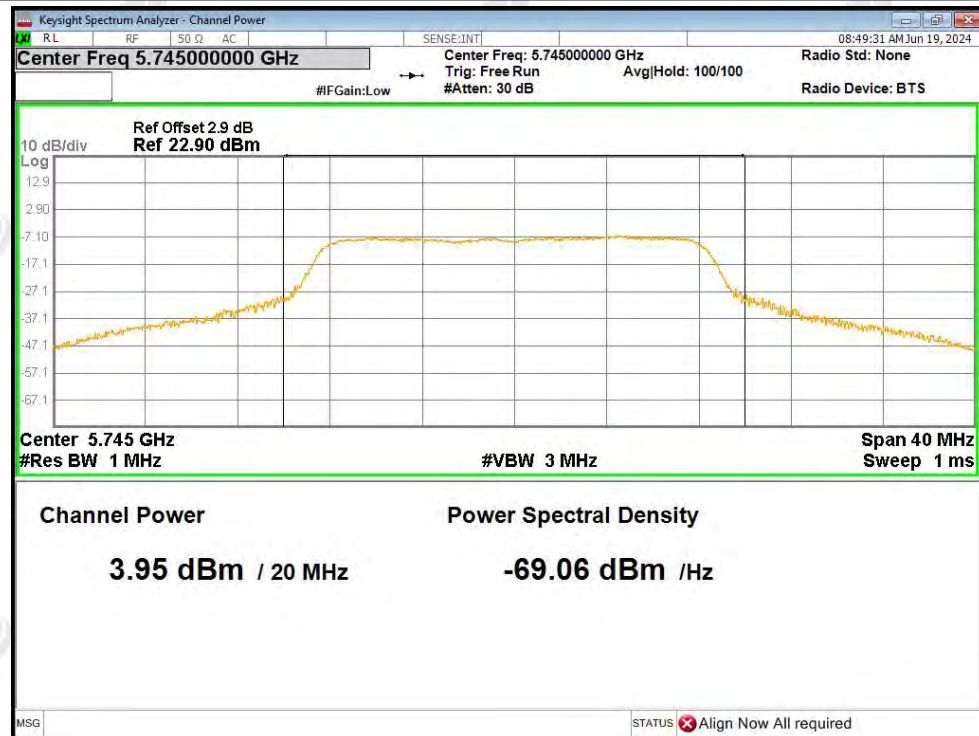
Maximum Conducted Output Power

Condition	Mode	Frequency (MHz)	Antenna	Conducted Power (dBm)	Duty Factor (dB)	Total Power (dBm)	Limit (dBm)	Verdict
NVNT	a	5745	Ant1	3.95	1.08	5.03	30	Pass
NVNT	a	5785	Ant1	4.02	1.58	5.6	30	Pass
NVNT	a	5825	Ant1	4.41	1.48	5.89	30	Pass
NVNT	n20	5745	Ant1	6.44	0.25	6.69	30	Pass
NVNT	n20	5785	Ant1	6.35	0.16	6.51	30	Pass
NVNT	n20	5825	Ant1	6.59	0.16	6.75	30	Pass
NVNT	n40	5755	Ant1	5.75	0.65	6.4	30	Pass
NVNT	n40	5795	Ant1	5.71	0.44	6.15	30	Pass
NVNT	ac20	5745	Ant1	6.34	0.24	6.58	30	Pass
NVNT	ac20	5785	Ant1	6.25	0.39	6.64	30	Pass
NVNT	ac20	5825	Ant1	6.49	0.13	6.62	30	Pass
NVNT	ac40	5755	Ant1	5.73	0.44	6.17	30	Pass
NVNT	ac40	5795	Ant1	5.83	0.68	6.51	30	Pass
NVNT	ax20	5745	Ant1	7.82	0.32	8.14	30	Pass
NVNT	ax20	5785	Ant1	6.17	0.51	6.68	30	Pass
NVNT	ax20	5825	Ant1	6.26	0.43	6.69	30	Pass
NVNT	ax40	5755	Ant1	5.87	0.69	6.56	30	Pass
NVNT	ax40	5795	Ant1	5.36	0.9	6.26	30	Pass

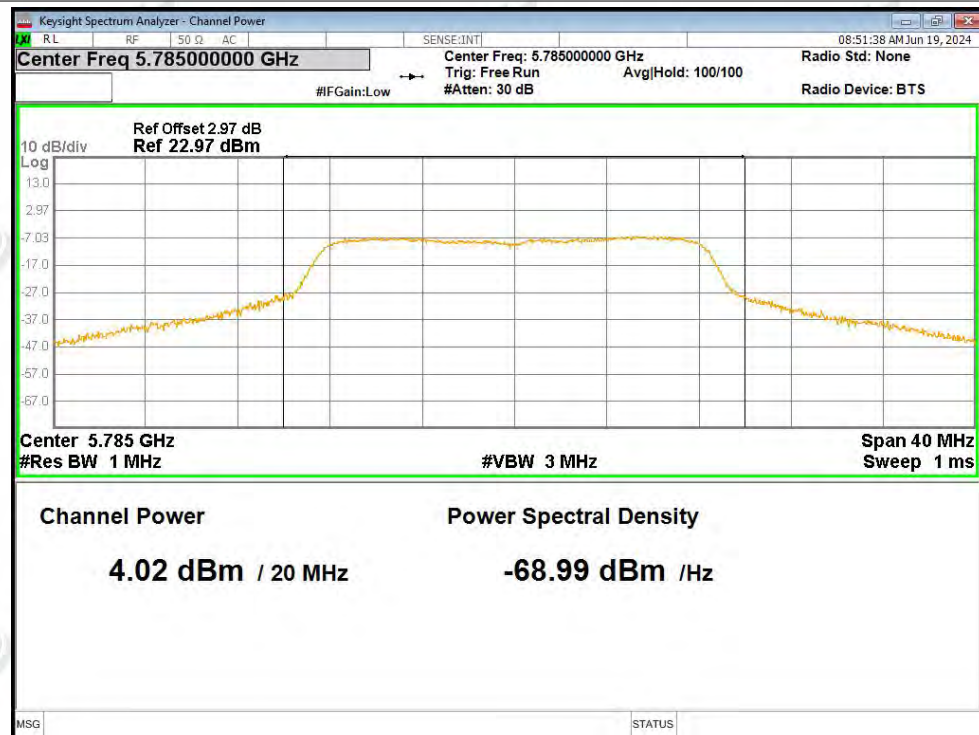


Test Graphs

Power NVNT a 5745MHz Ant1

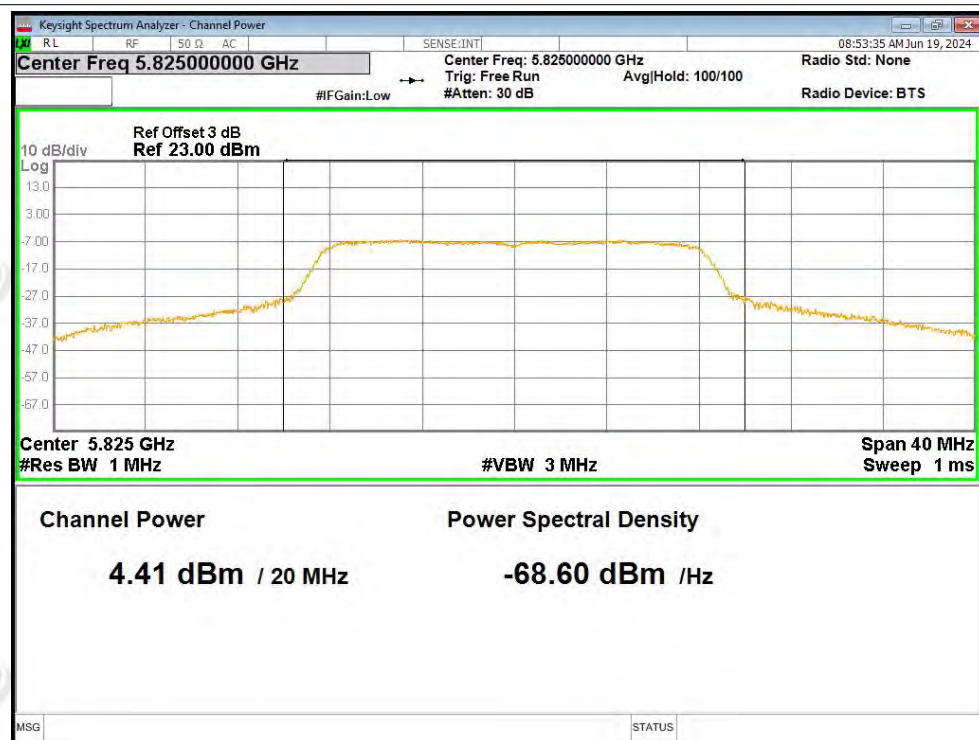


Power NVNT a 5785MHz Ant1

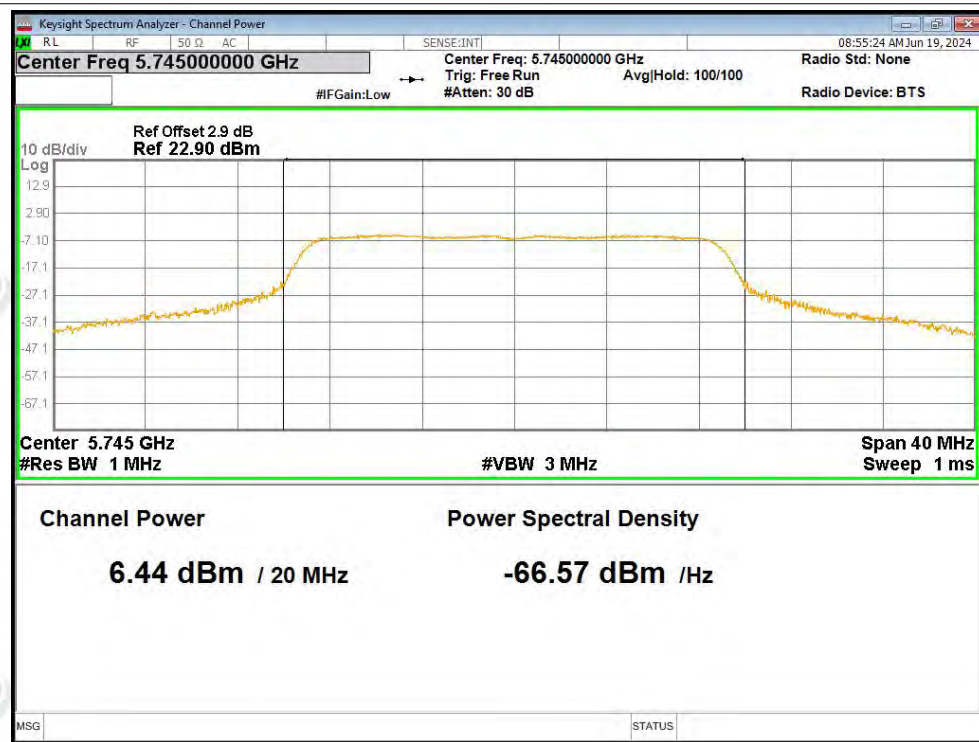




Power NVNT a 5825MHz Ant1

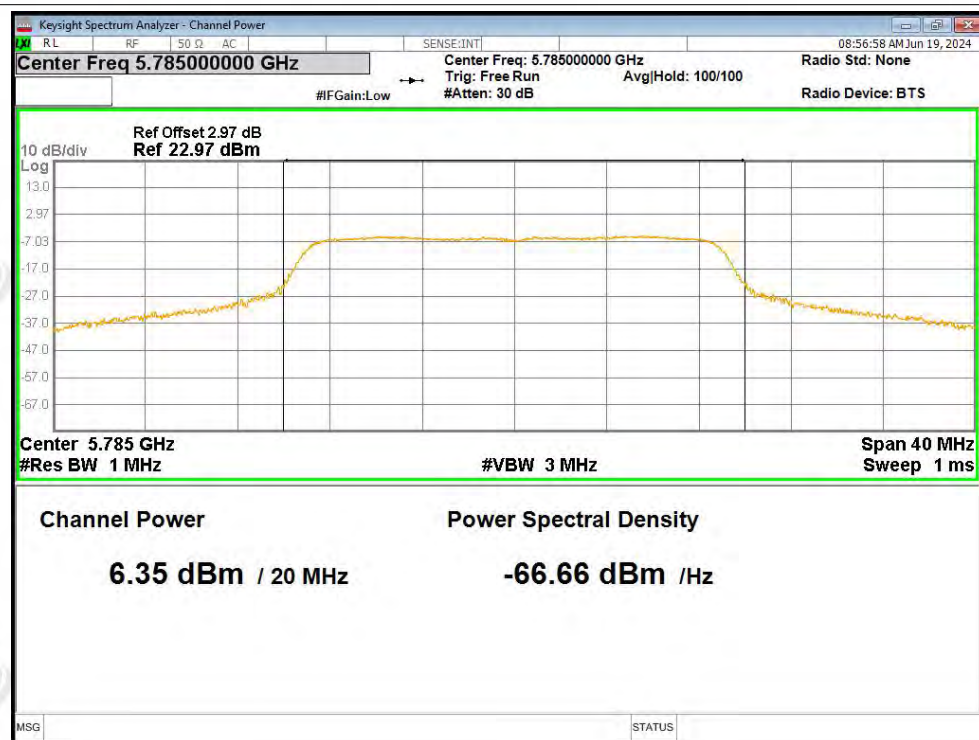


Power NVNT n20 5745MHz Ant1

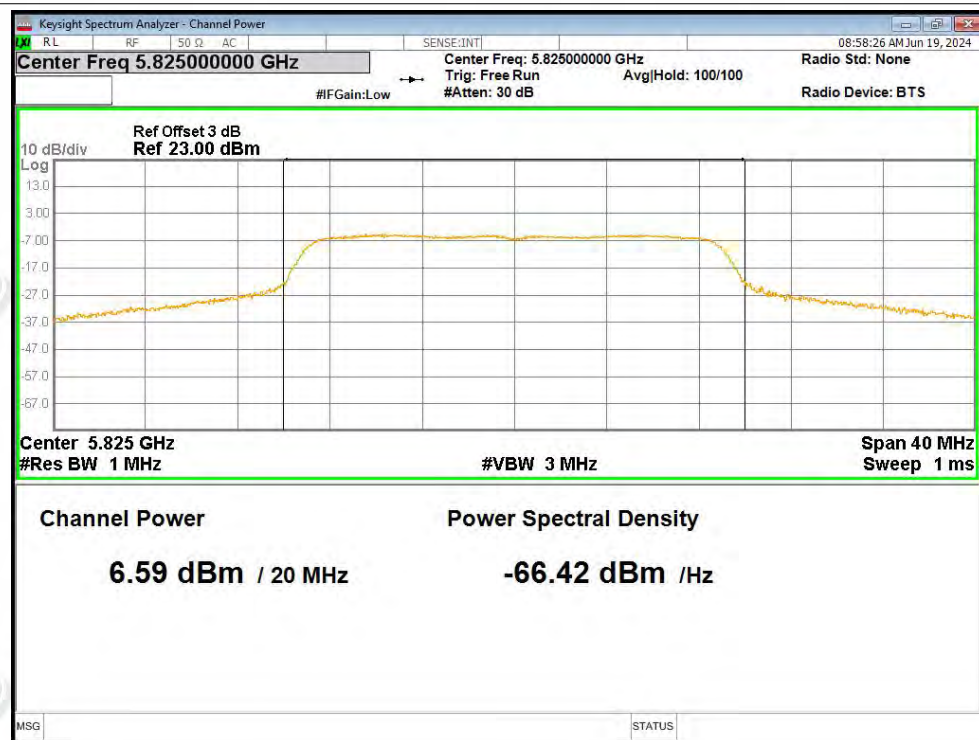




Power NVNT n20 5785MHz Ant1

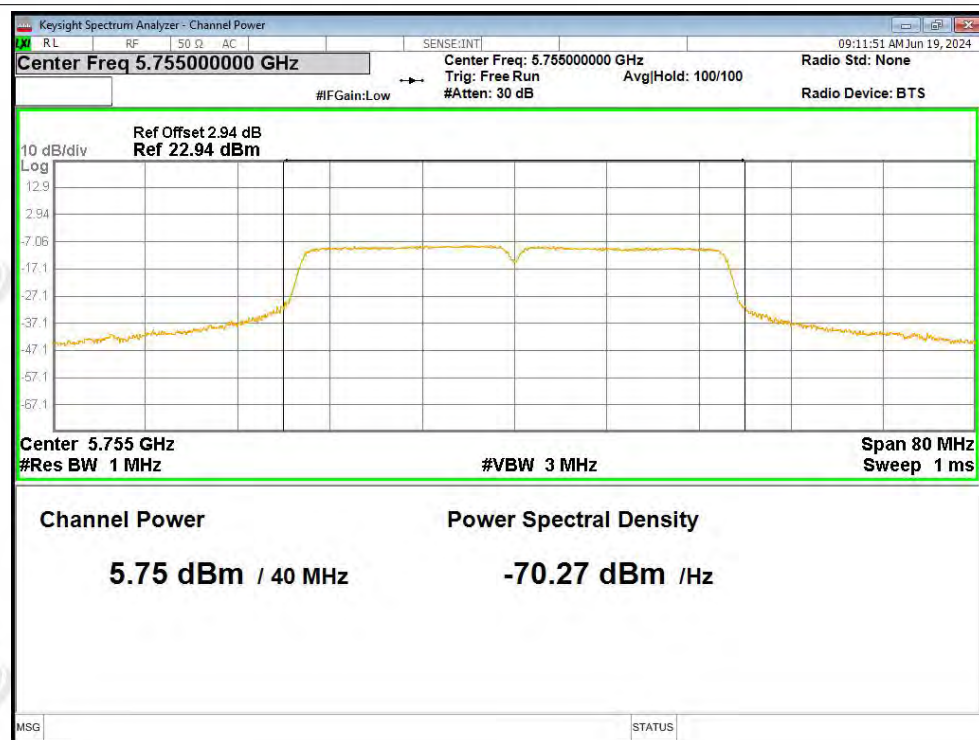


Power NVNT n20 5825MHz Ant1

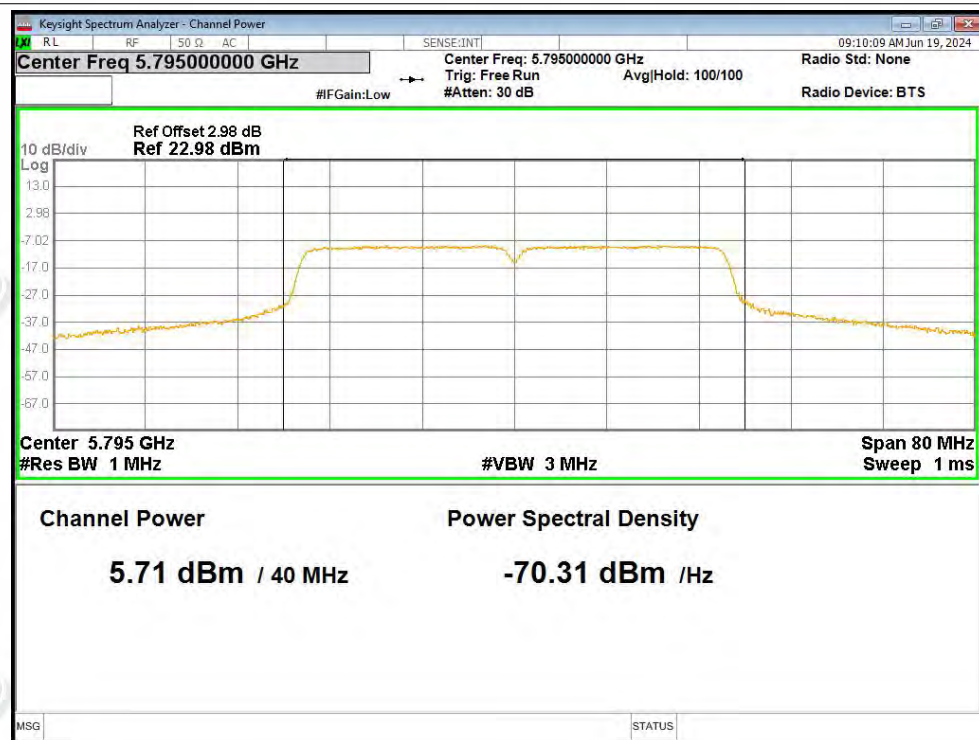




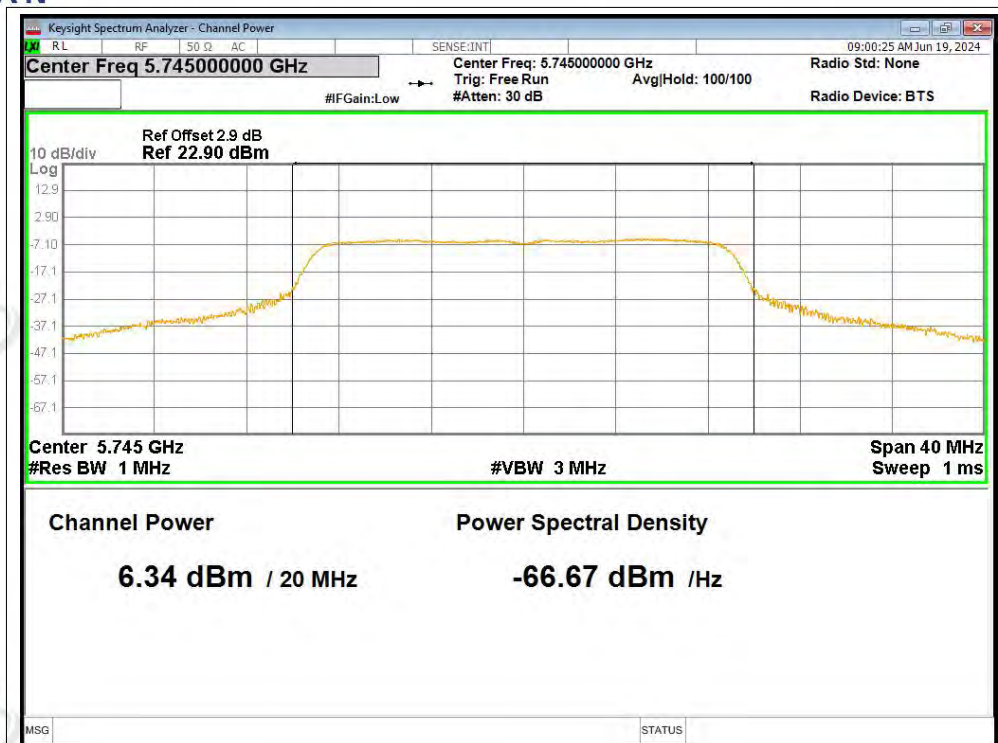
Power NVNT n40 5755MHz Ant1



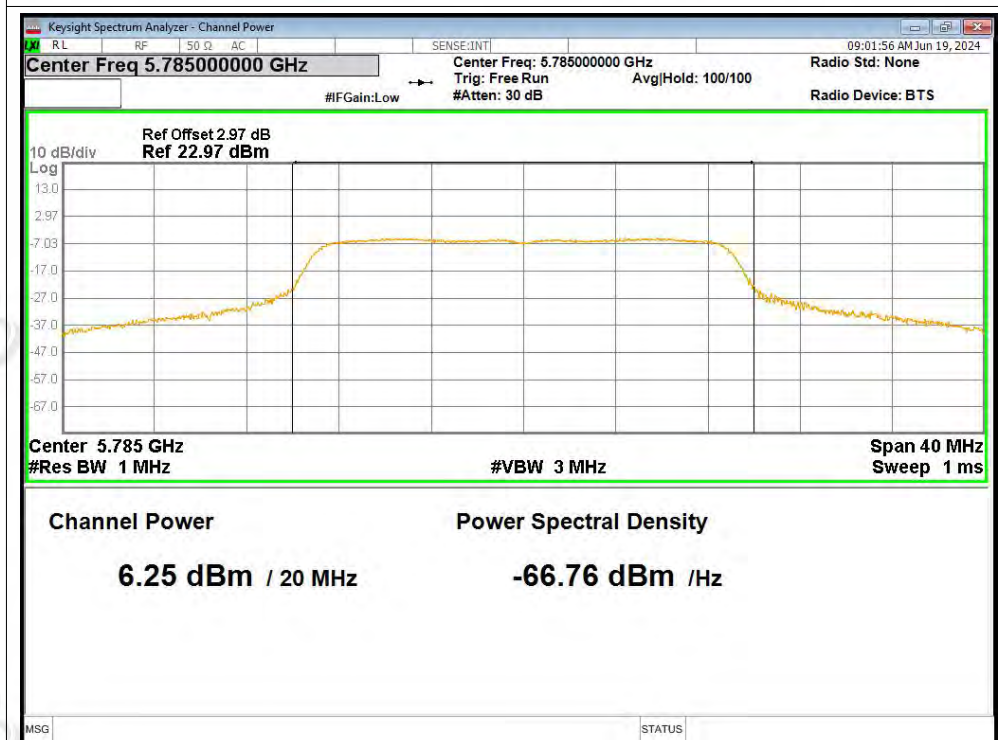
Power NVNT n40 5795MHz Ant1



Power NVNT ac20 5745MHz Ant1



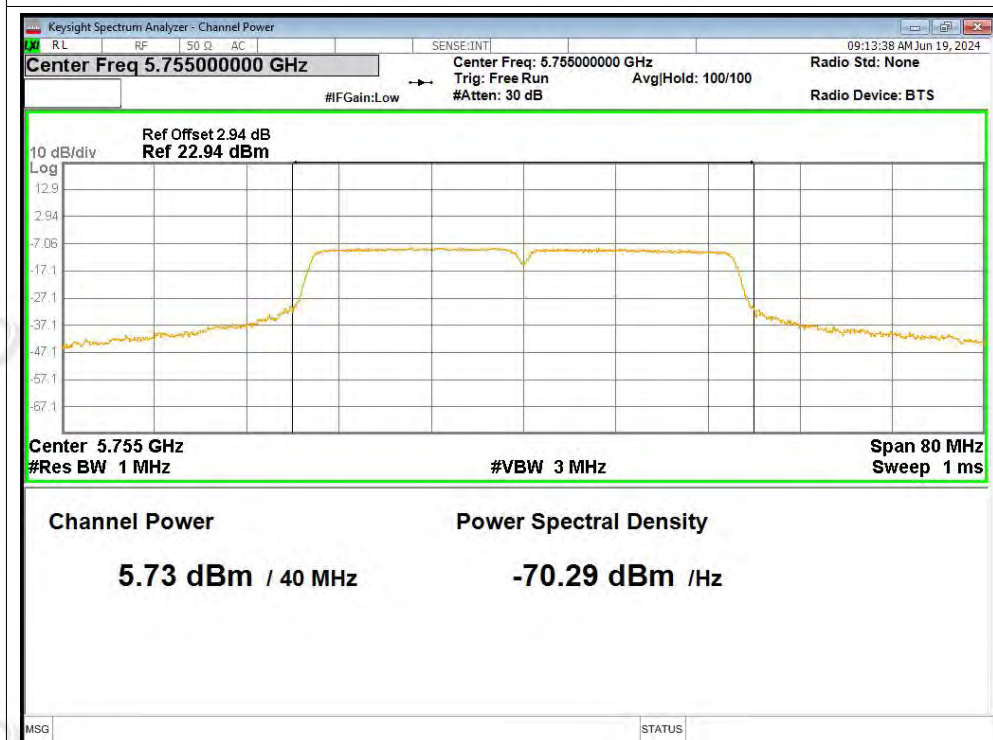
Power NVNT ac20 5785MHz Ant1



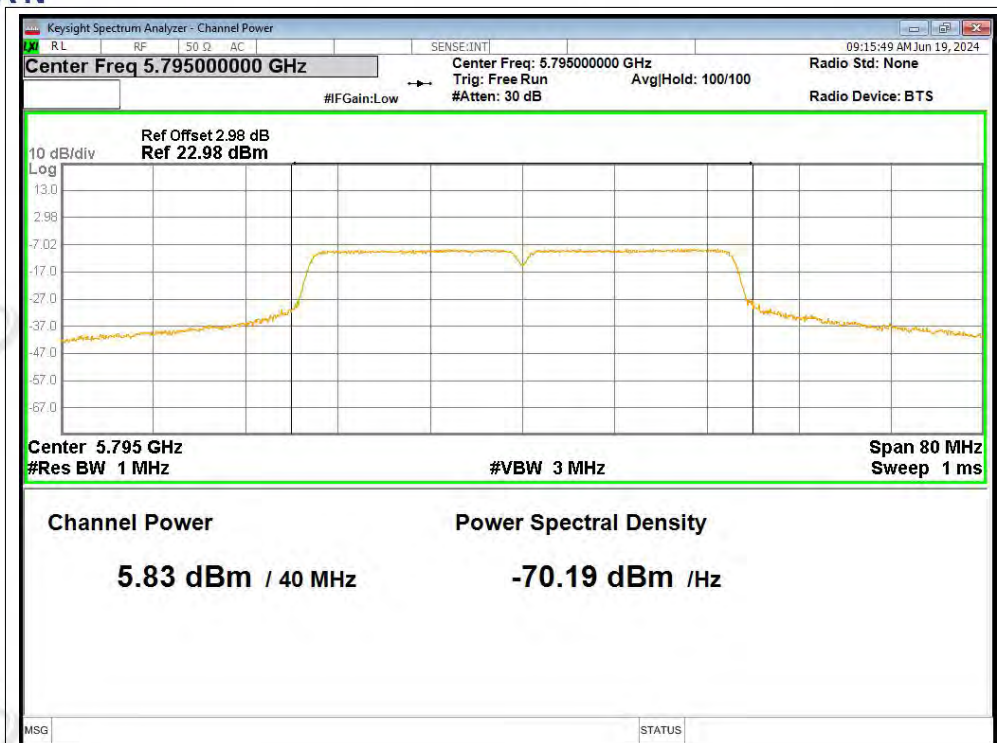
Power NVNT ac20 5825MHz Ant1



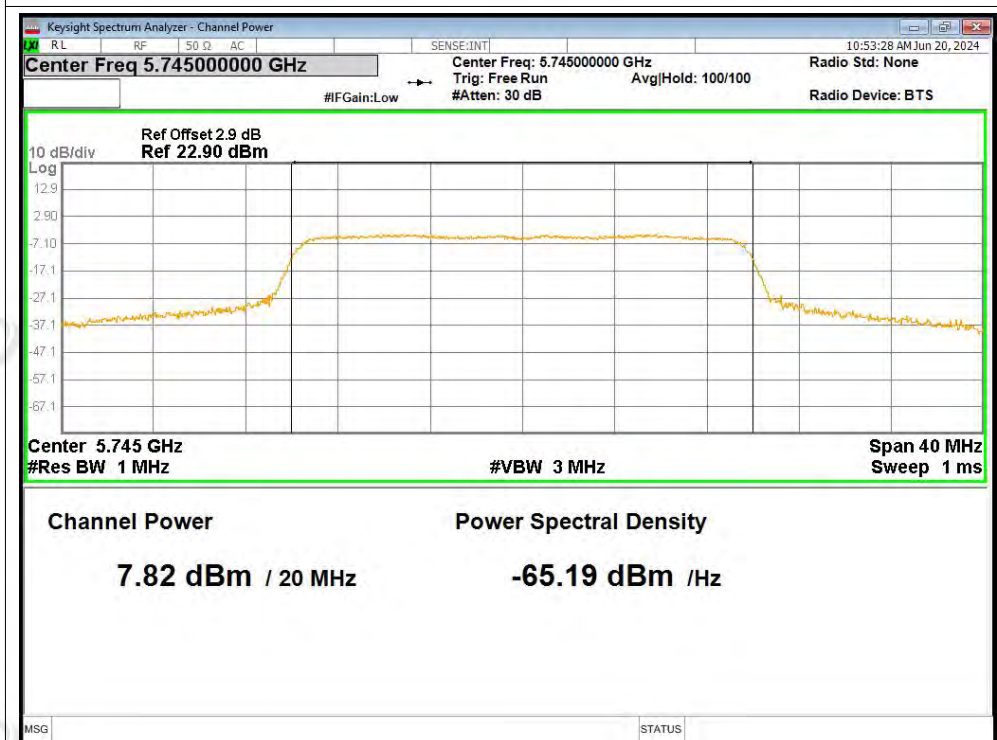
Power NVNT ac40 5755MHz Ant1



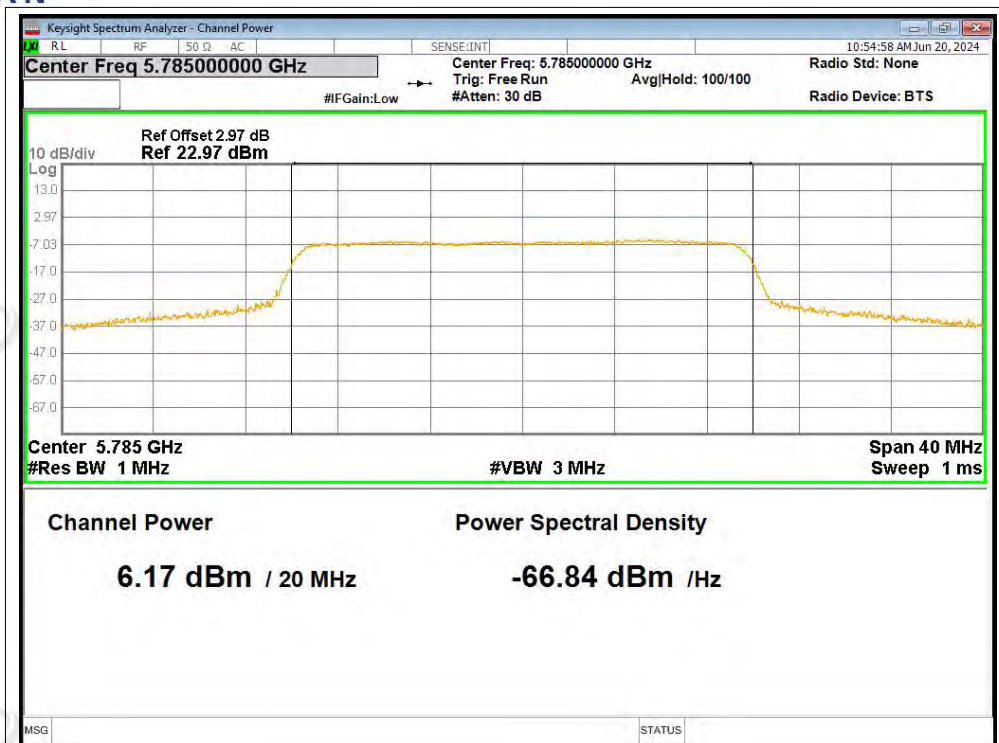
Power NVNT ac40 5795MHz Ant1



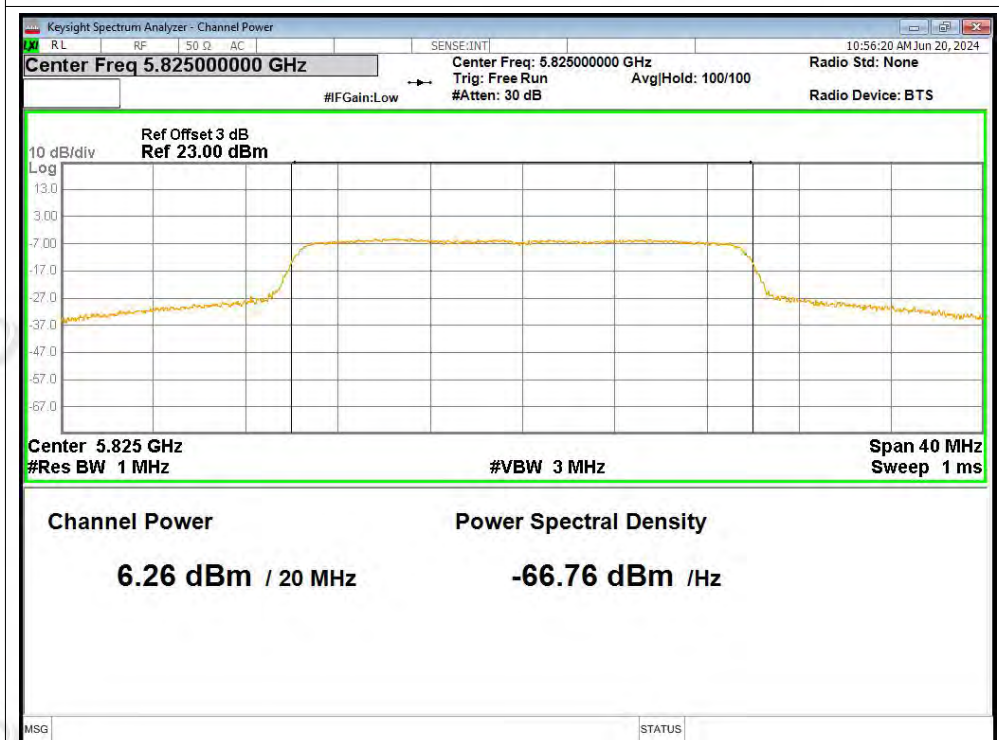
Power NVNT ax20 5745MHz Ant1



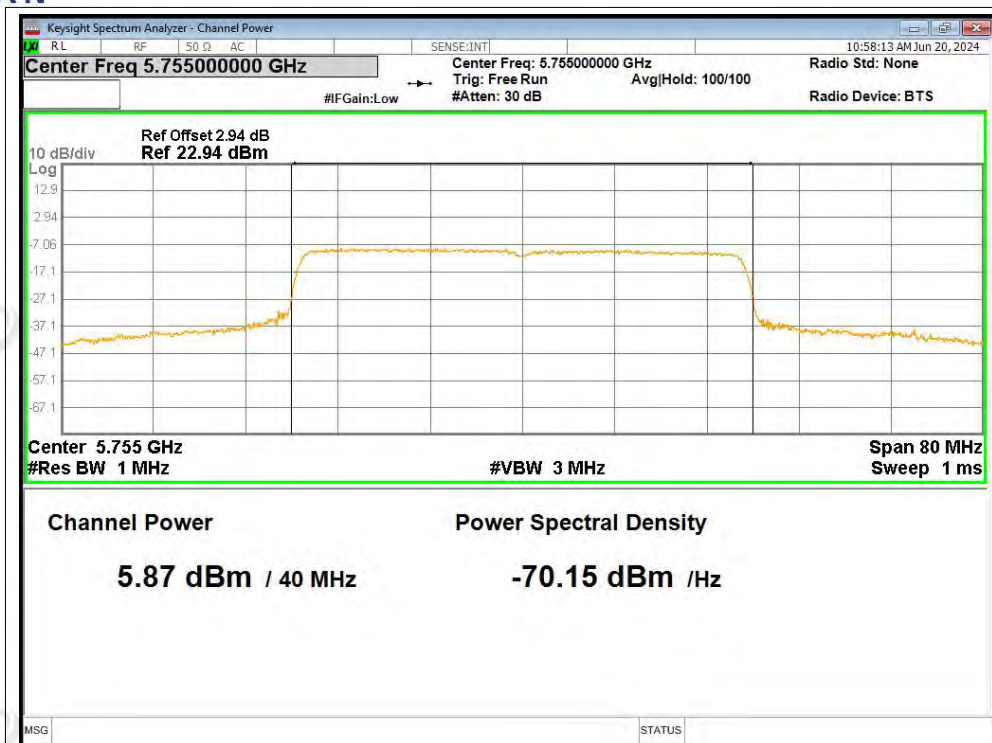
Power NVNT ax20 5785MHz Ant1



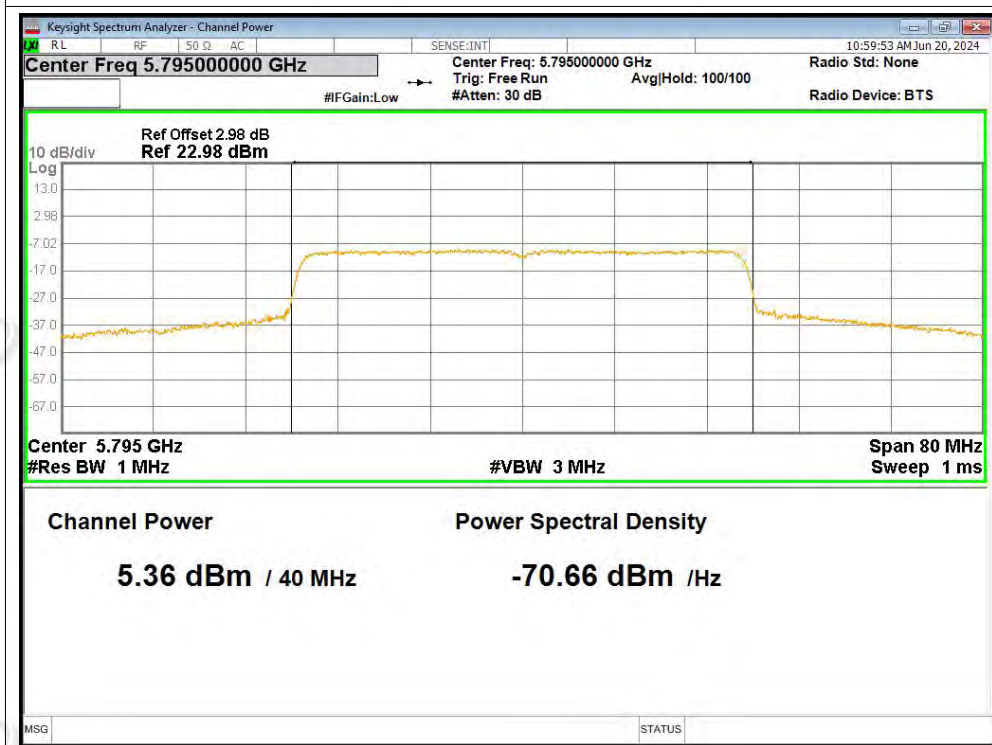
Power NVNT ax20 5825MHz Ant1



Power NVNT ax40 5755MHz Ant1



Power NVNT ax40 5795MHz Ant1





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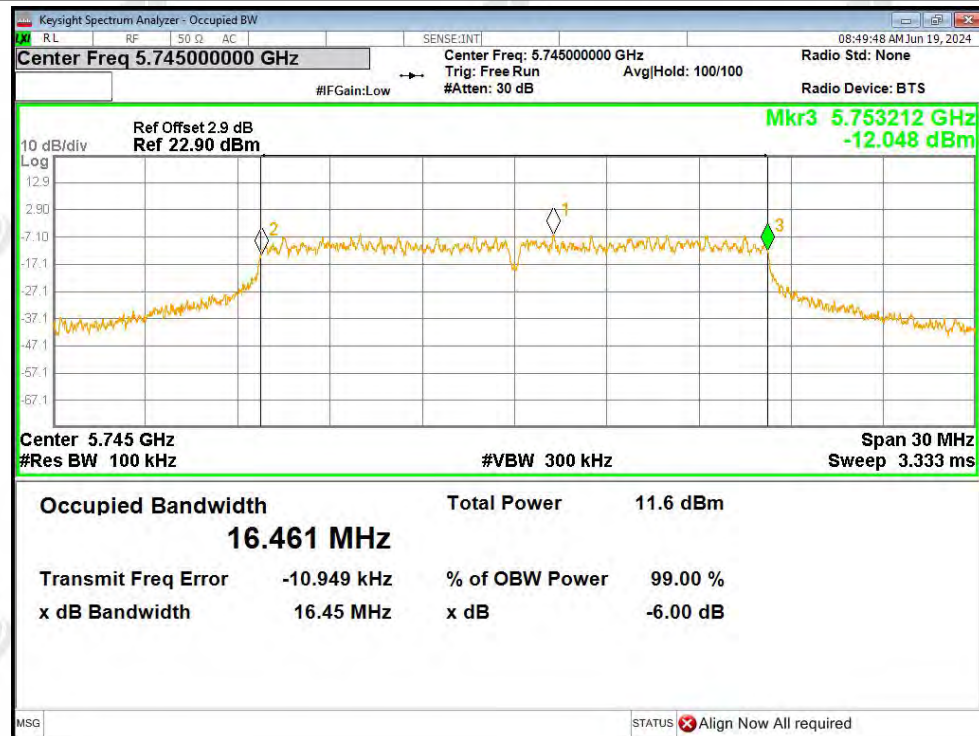
-6dB Bandwidth

Condition	Mode	Frequency (MHz)	Antenna	-6 dB Bandwidth (MHz)	Limit -6 dB Bandwidth (MHz)	Verdict
NVNT	a	5745	Ant1	16.447	0.5	Pass
NVNT	a	5785	Ant1	16.41	0.5	Pass
NVNT	a	5825	Ant1	16.421	0.5	Pass
NVNT	n20	5745	Ant1	17.573	0.5	Pass
NVNT	n20	5785	Ant1	17.569	0.5	Pass
NVNT	n20	5825	Ant1	17.562	0.5	Pass
NVNT	n40	5755	Ant1	36.286	0.5	Pass
NVNT	n40	5795	Ant1	36.295	0.5	Pass
NVNT	ac20	5745	Ant1	17.603	0.5	Pass
NVNT	ac20	5785	Ant1	17.568	0.5	Pass
NVNT	ac20	5825	Ant1	17.557	0.5	Pass
NVNT	ac40	5755	Ant1	36.315	0.5	Pass
NVNT	ac40	5795	Ant1	36.335	0.5	Pass
NVNT	ax20	5745	Ant1	18.865	0.5	Pass
NVNT	ax20	5785	Ant1	19.02	0.5	Pass
NVNT	ax20	5825	Ant1	18.882	0.5	Pass
NVNT	ax40	5755	Ant1	37.908	0.5	Pass
NVNT	ax40	5795	Ant1	37.945	0.5	Pass

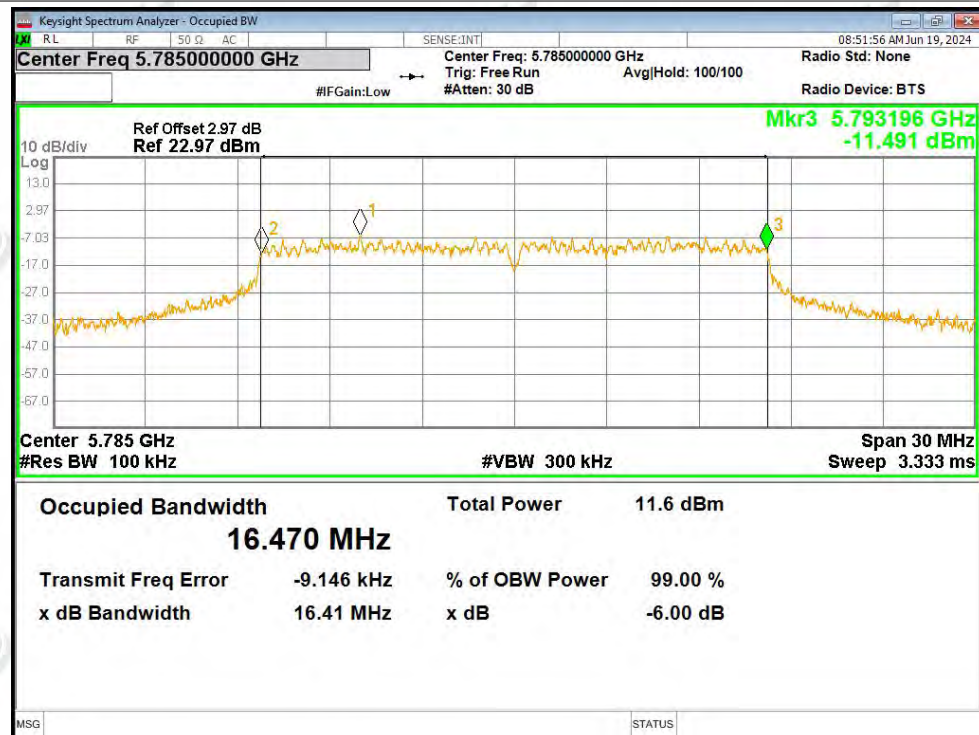


Test Graphs

-6dB Bandwidth NVNT a 5745MHz Ant1

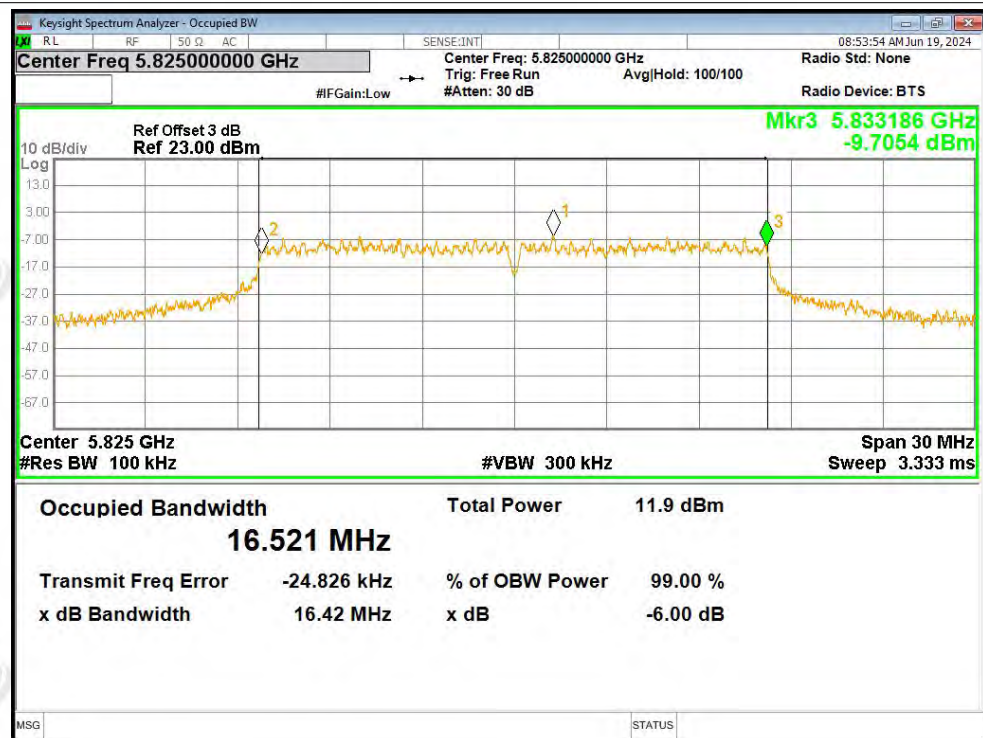


-6dB Bandwidth NVNT a 5785MHz Ant1

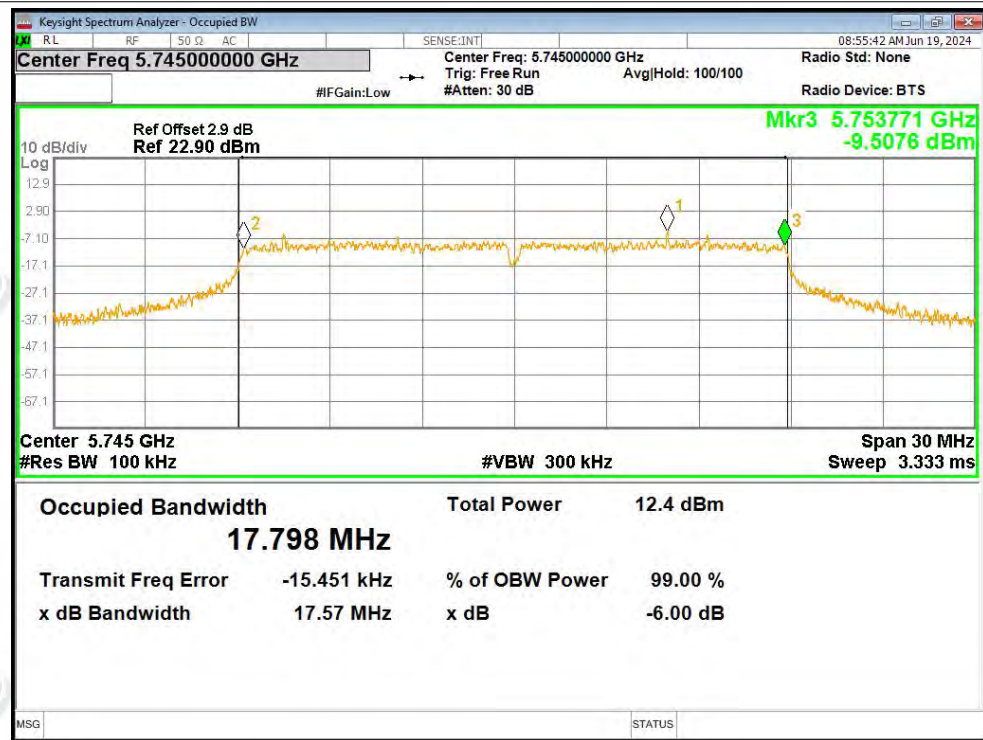




-6dB Bandwidth NVNT a 5825MHz Ant1

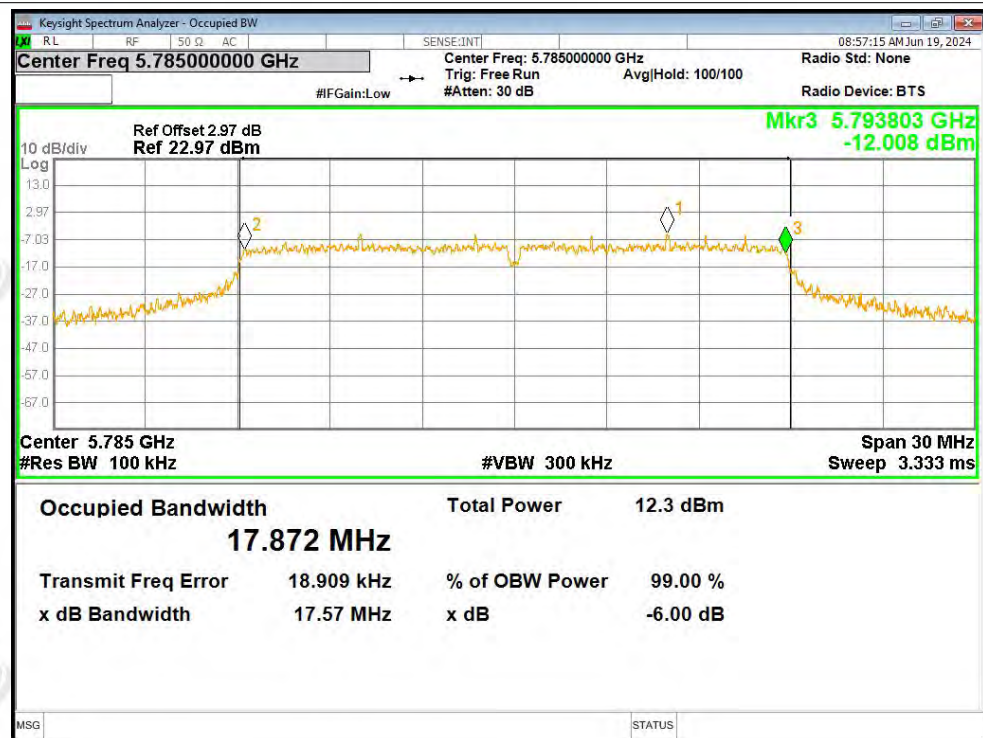


-6dB Bandwidth NVNT n20 5745MHz Ant1

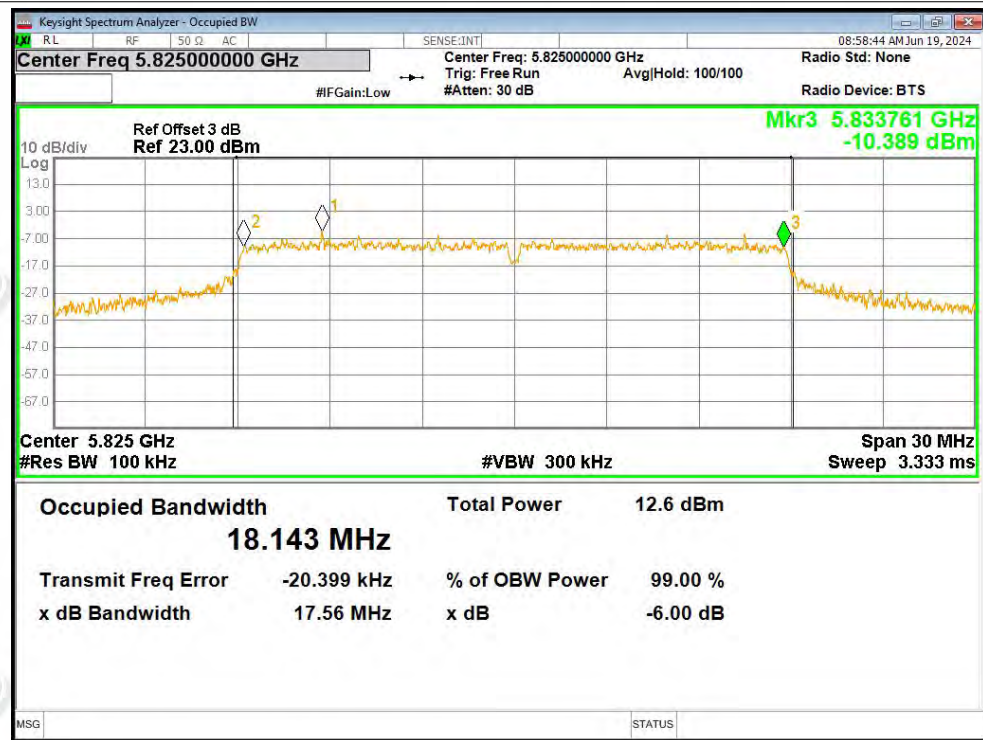




-6dB Bandwidth NVNT n20 5785MHz Ant1

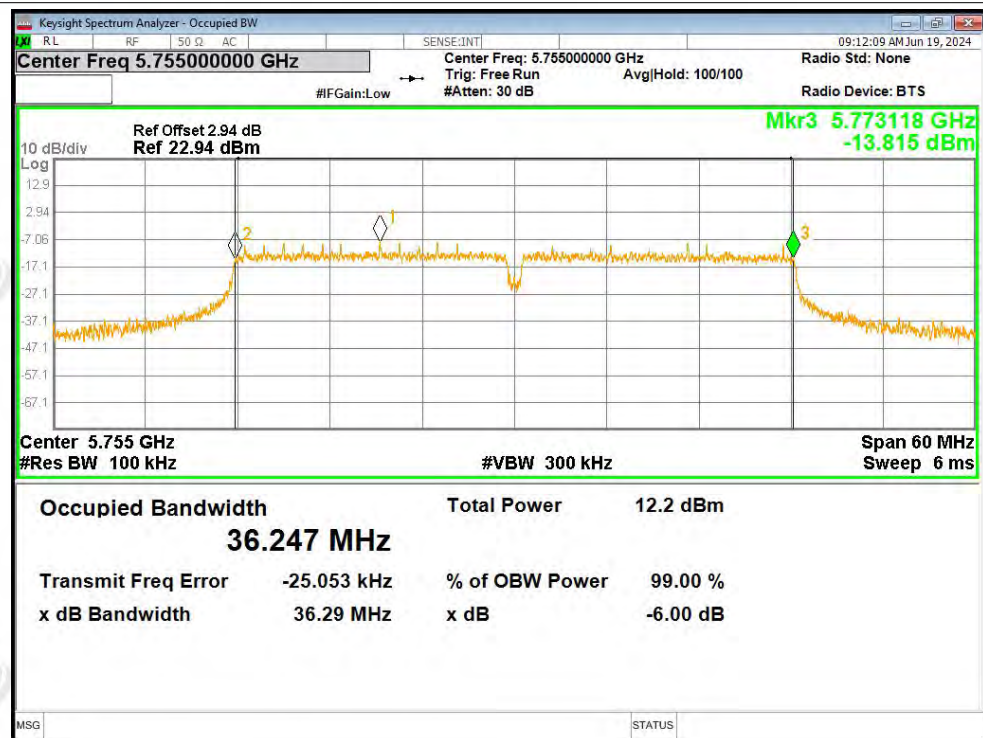


-6dB Bandwidth NVNT n20 5825MHz Ant1

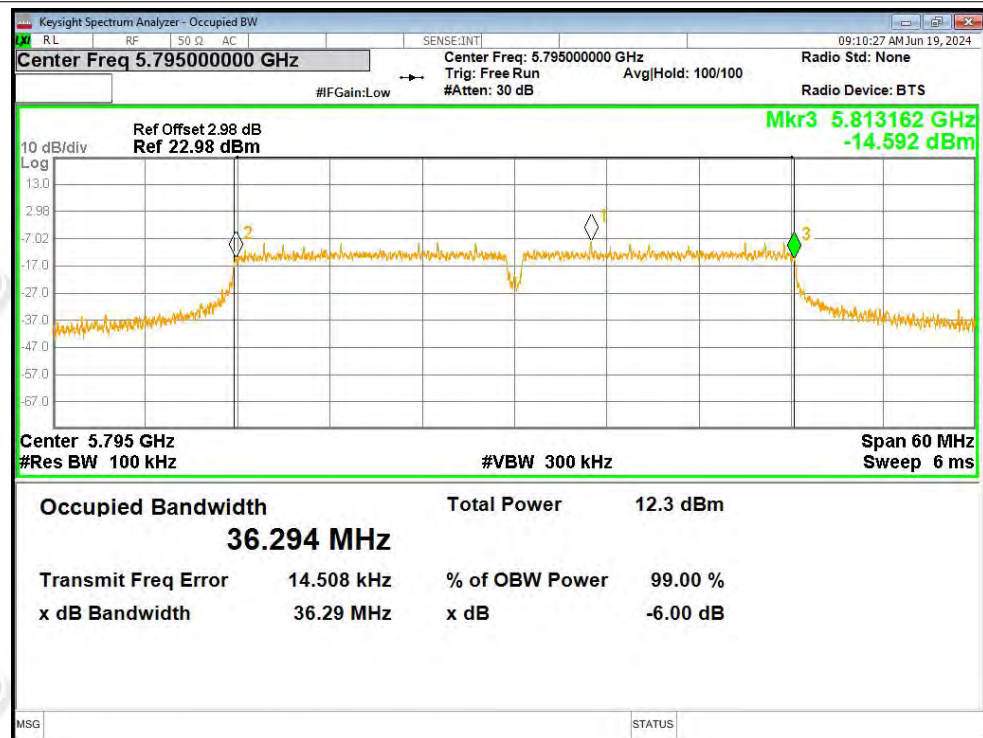




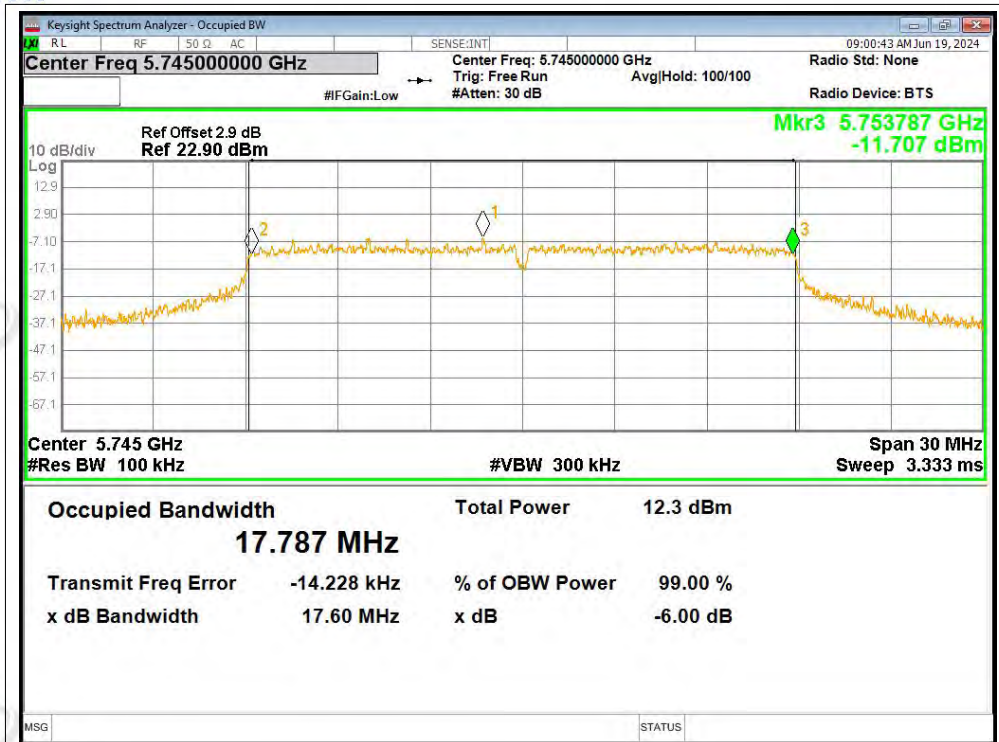
-6dB Bandwidth NVNT n40 5755MHz Ant1



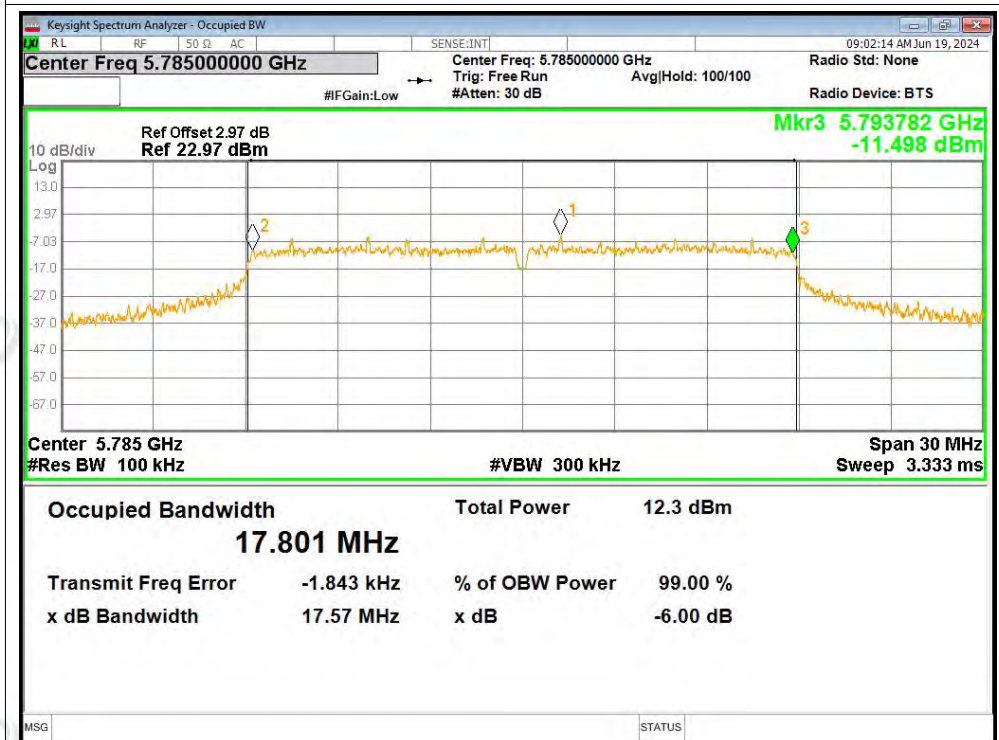
-6dB Bandwidth NVNT n40 5795MHz Ant1



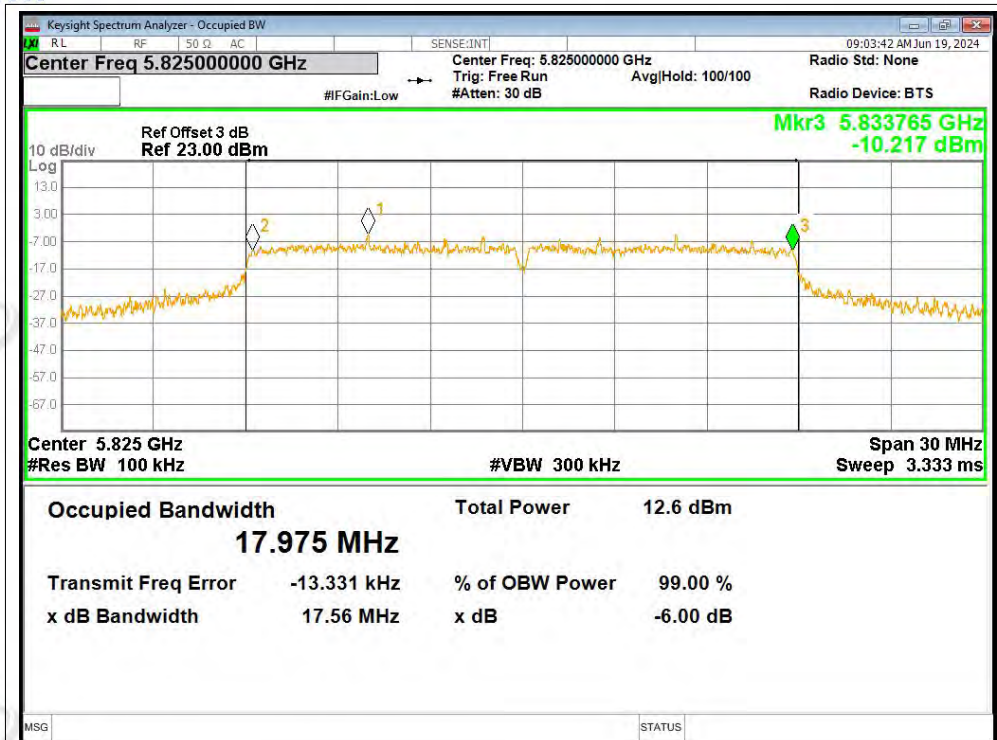
-6dB Bandwidth NVNT ac20 5745MHz Ant1



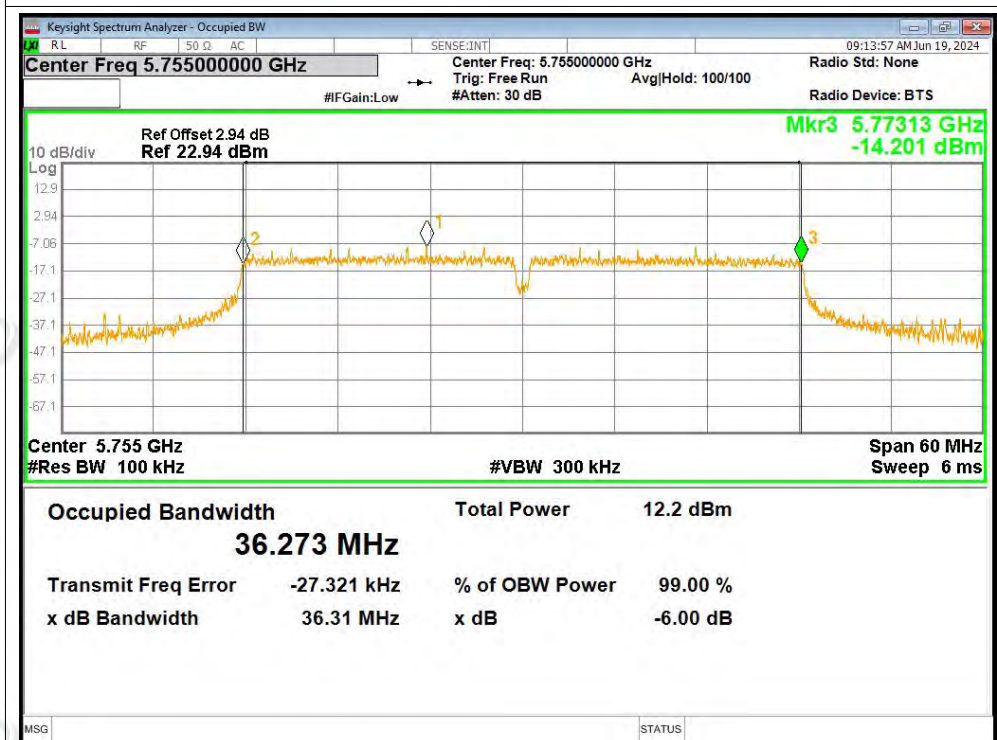
-6dB Bandwidth NVNT ac20 5785MHz Ant1



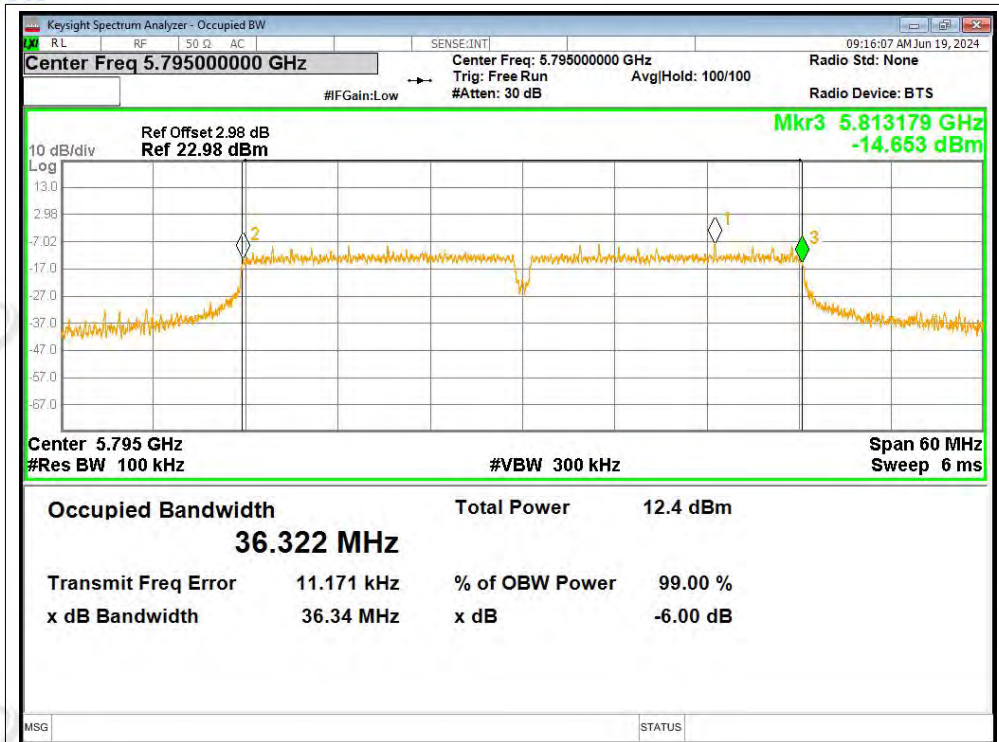
-6dB Bandwidth NVNT ac20 5825MHz Ant1



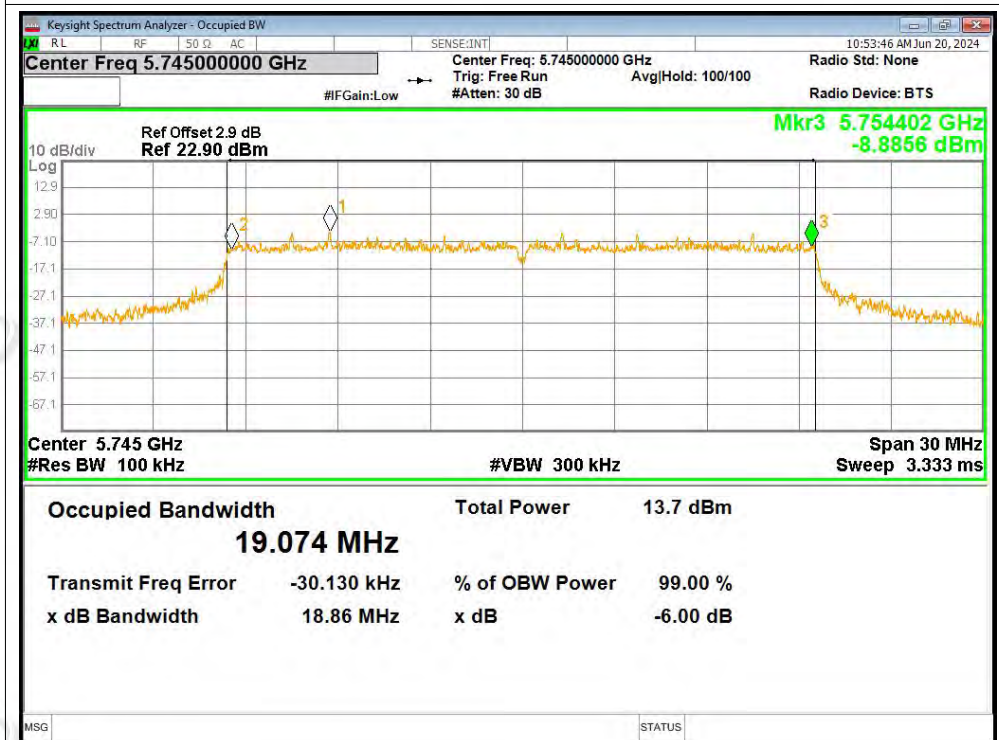
-6dB Bandwidth NVNT ac40 5755MHz Ant1



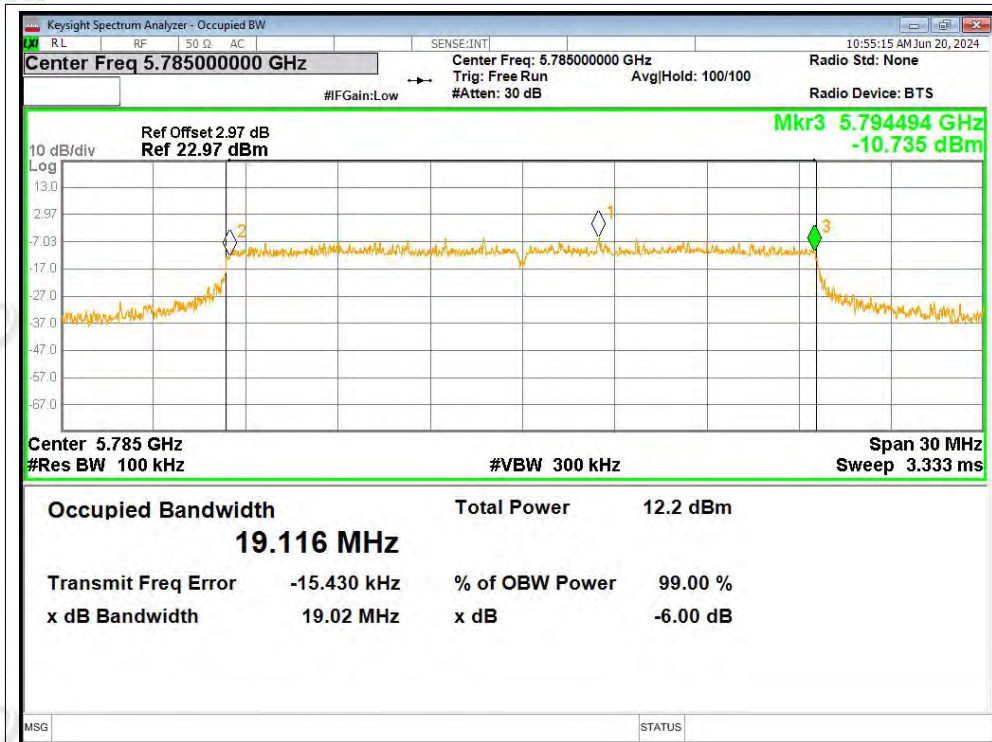
-6dB Bandwidth NVNT ac40 5795MHz Ant1



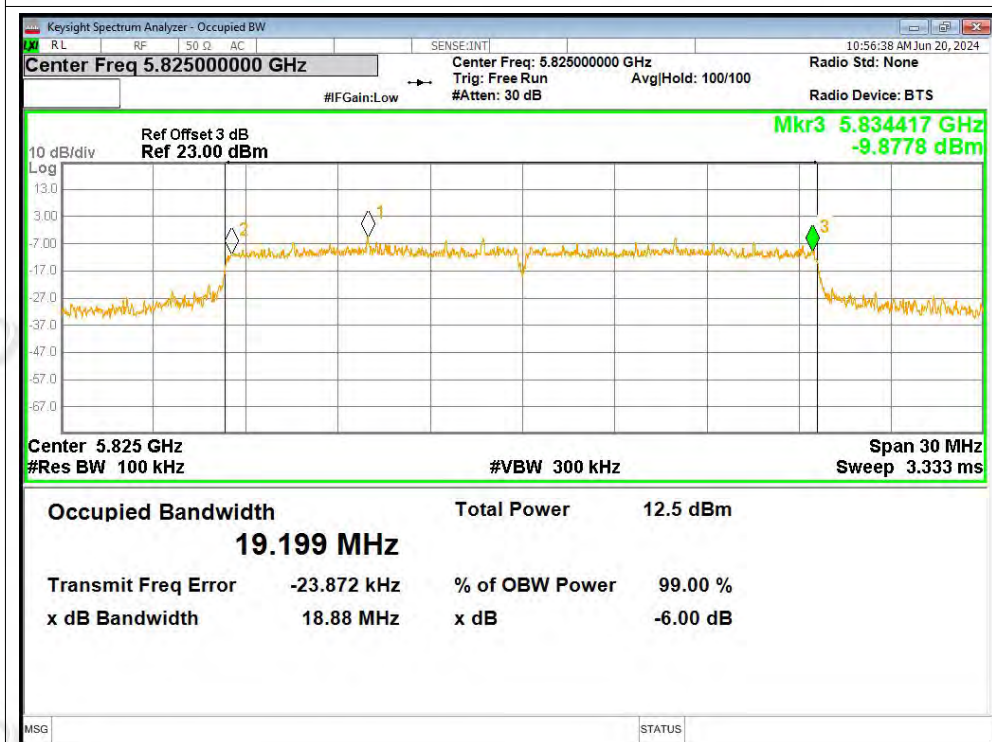
-6dB Bandwidth NVNT ax20 5745MHz Ant1



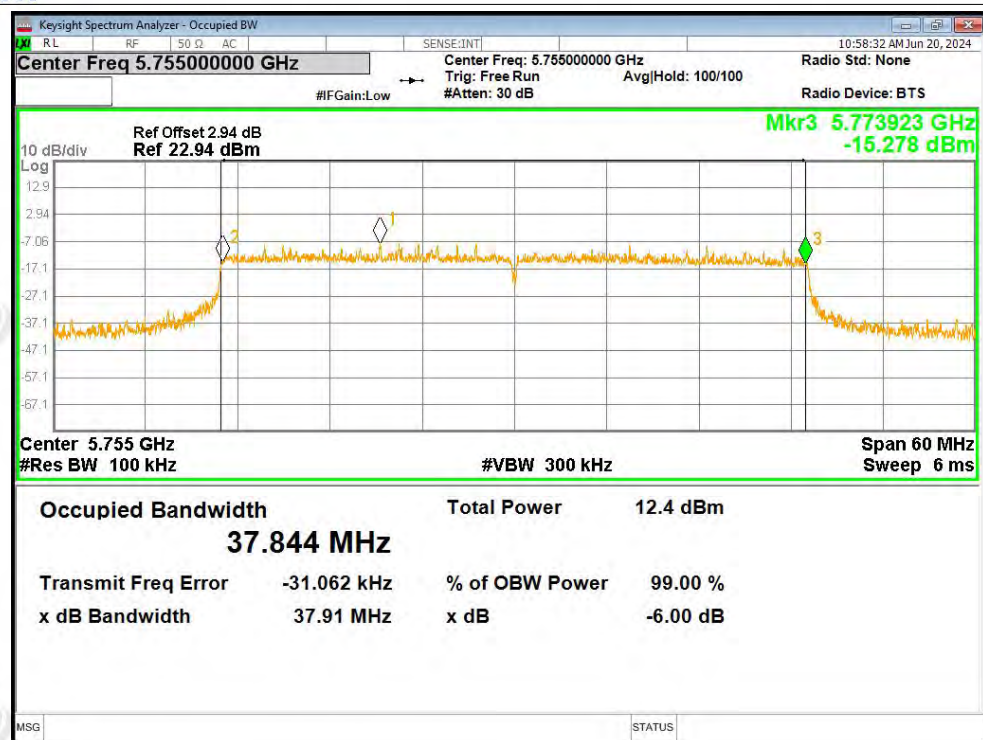
-6dB Bandwidth NVNT ax20 5785MHz Ant1



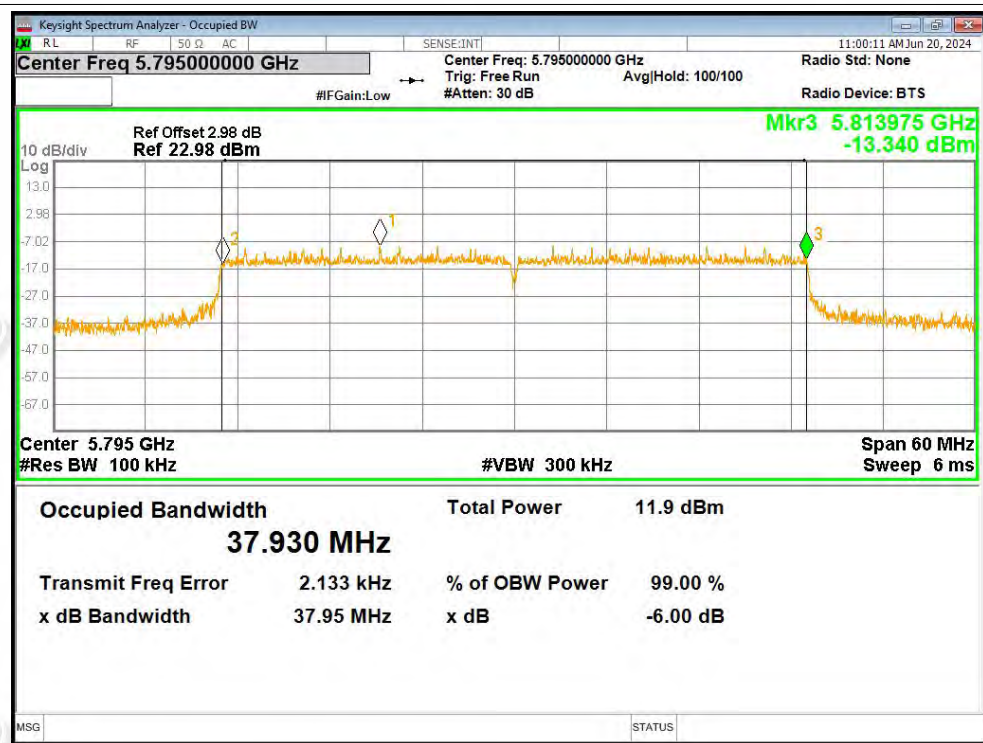
-6dB Bandwidth NVNT ax20 5825MHz Ant1



-6dB Bandwidth NVNT ax40 5755MHz Ant1



-6dB Bandwidth NVNT ax40 5795MHz Ant1





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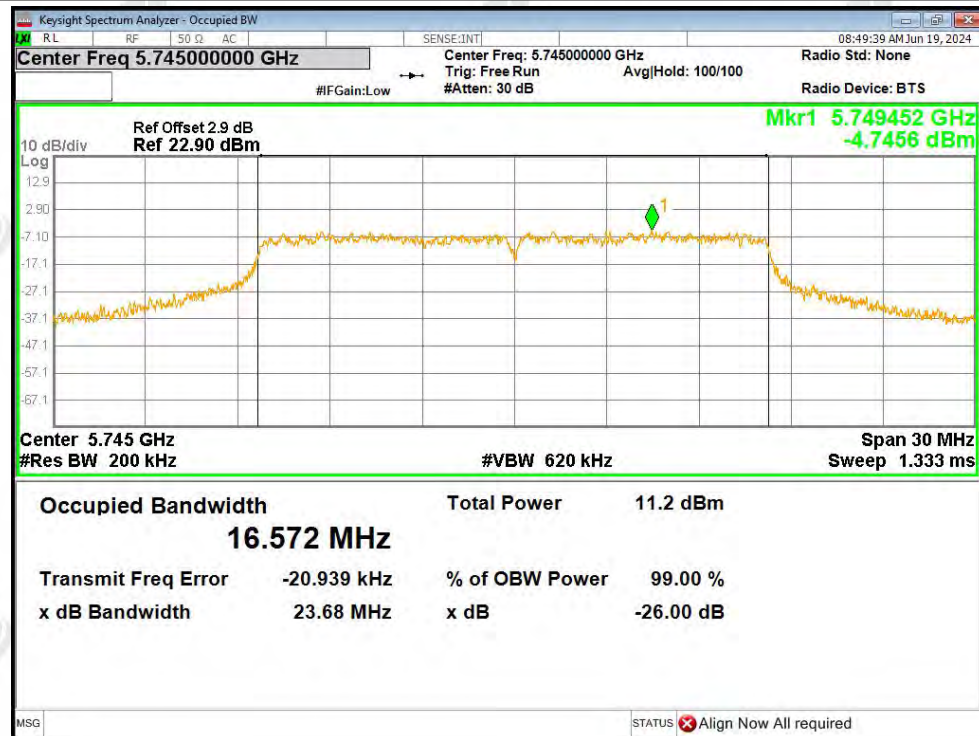
Occupied Channel Bandwidth

Condition	Mode	Frequency (MHz)	Antenna	99% OBW (MHz)
NVNT	a	5745	Ant1	16.572
NVNT	a	5785	Ant1	16.581
NVNT	a	5825	Ant1	16.669
NVNT	n20	5745	Ant1	18.008
NVNT	n20	5785	Ant1	18.079
NVNT	n20	5825	Ant1	18.36
NVNT	n40	5755	Ant1	36.62
NVNT	n40	5795	Ant1	36.745
NVNT	ac20	5745	Ant1	17.973
NVNT	ac20	5785	Ant1	18.06
NVNT	ac20	5825	Ant1	18.393
NVNT	ac40	5755	Ant1	36.625
NVNT	ac40	5795	Ant1	36.809
NVNT	ax20	5745	Ant1	19.164
NVNT	ax20	5785	Ant1	19.158
NVNT	ax20	5825	Ant1	19.279
NVNT	ax40	5755	Ant1	37.98
NVNT	ax40	5795	Ant1	38.038

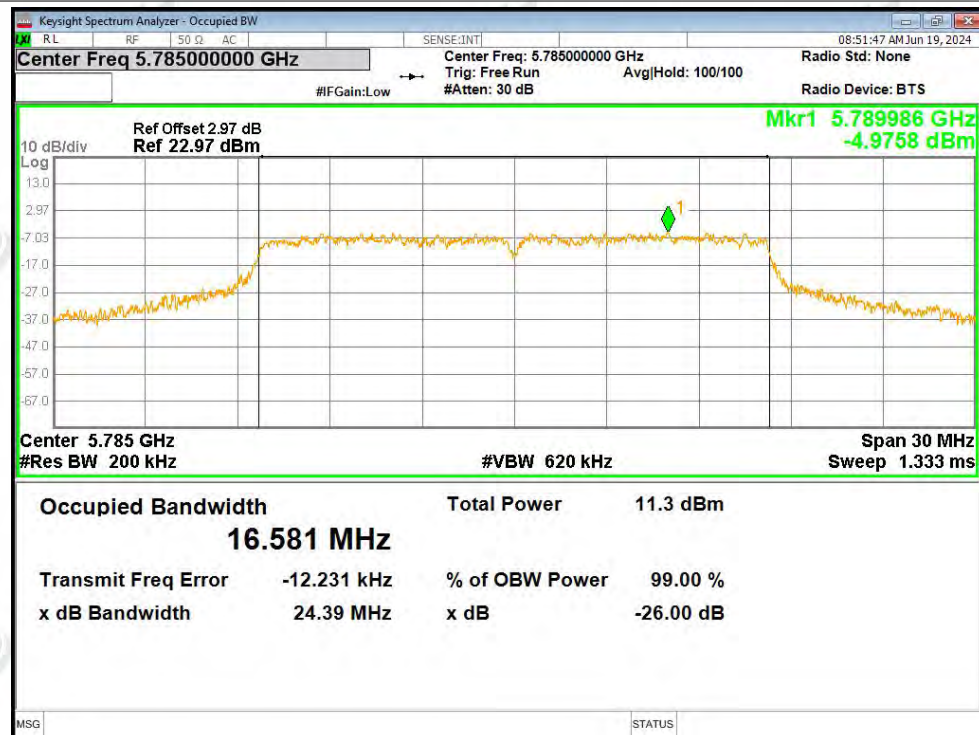


Test Graphs

OBW NVNT a 5745MHz Ant1

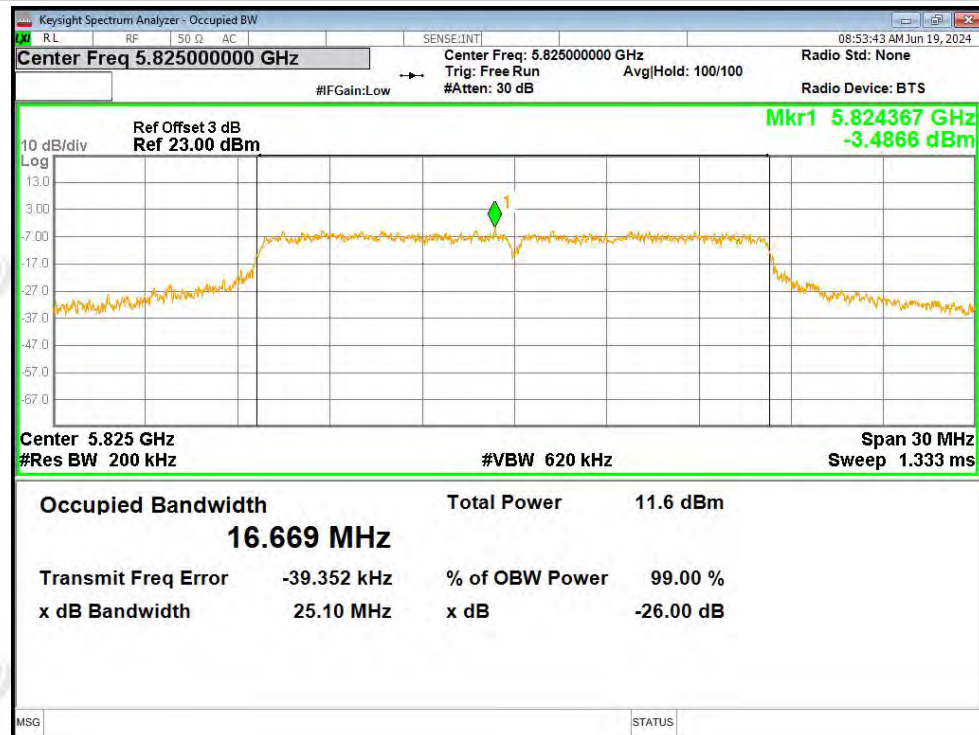


OBW NVNT a 5785MHz Ant1

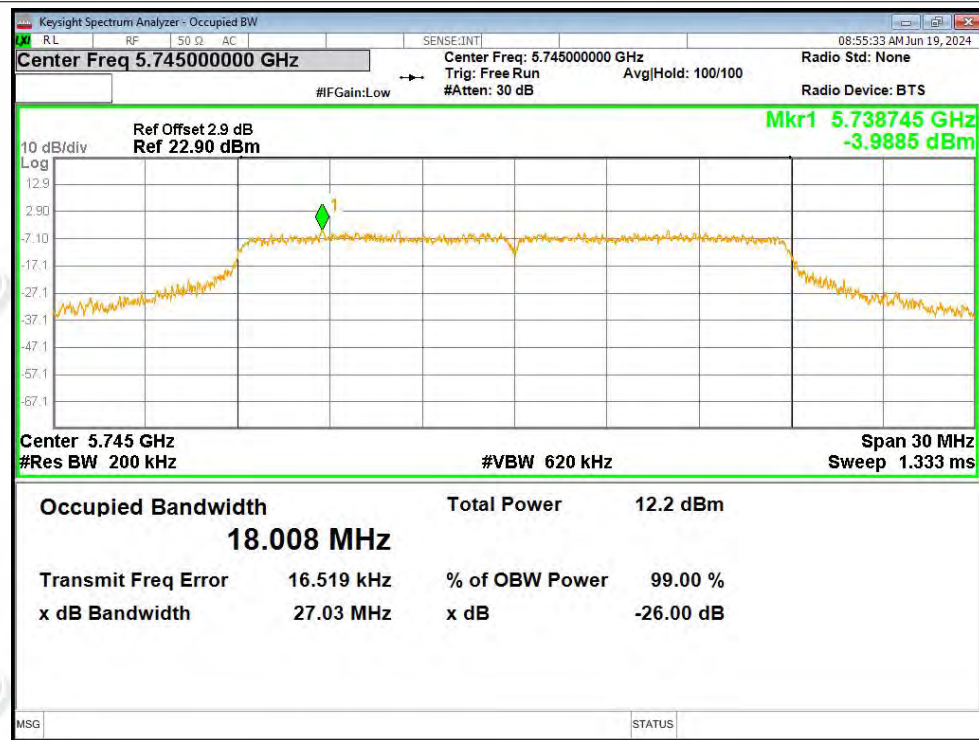




OBW NVNT a 5825MHz Ant1

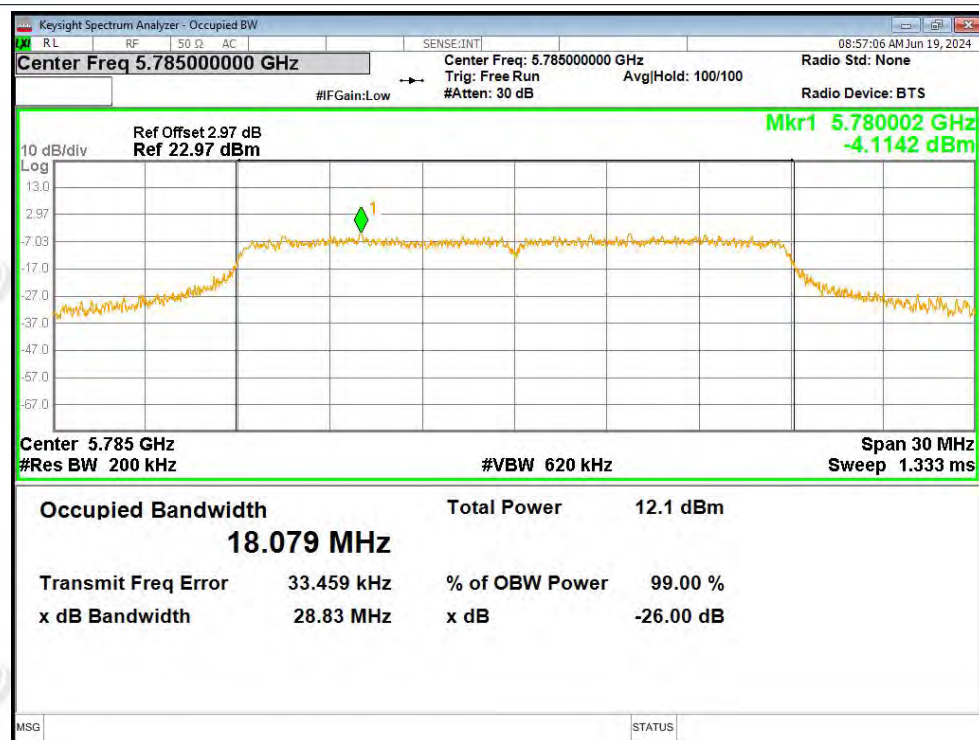


OBW NVNT n20 5745MHz Ant1

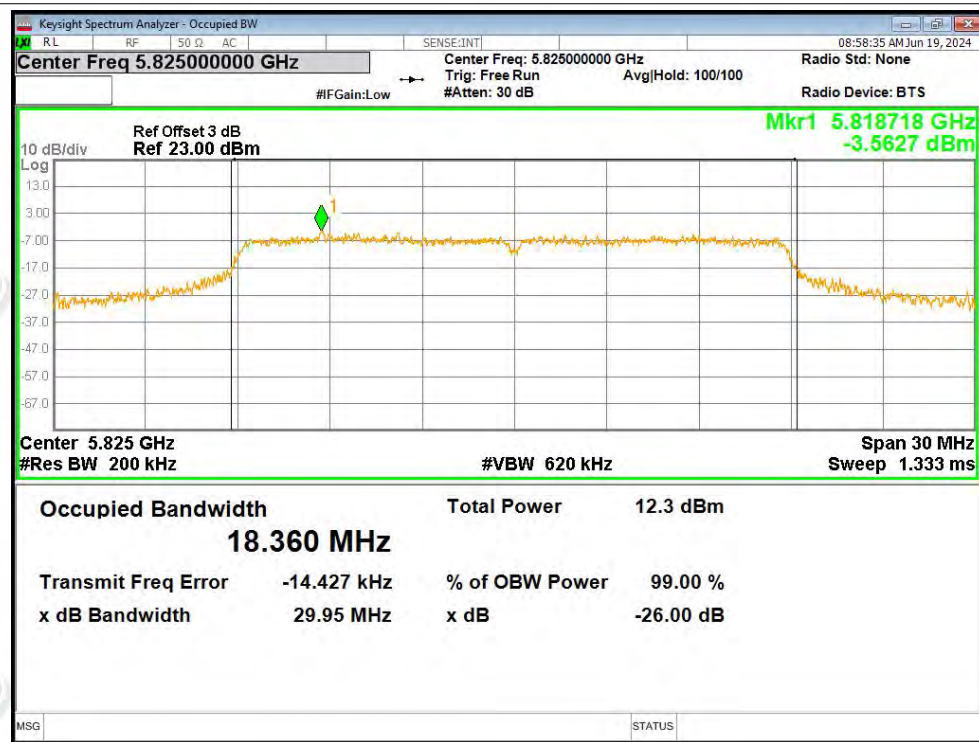




OBW NVNT n20 5785MHz Ant1

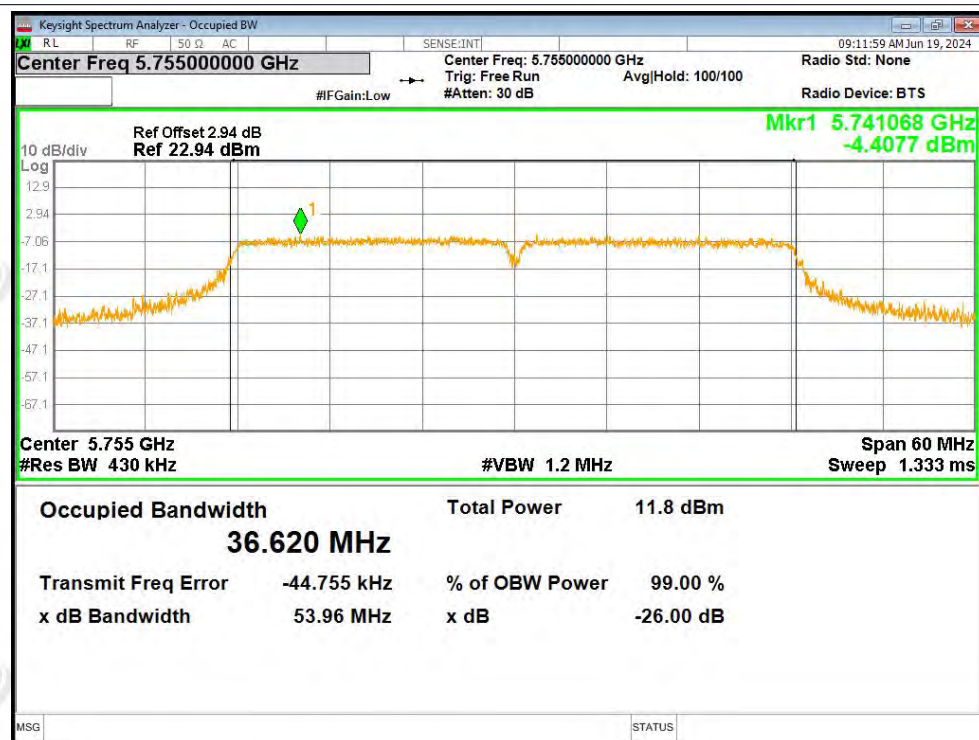


OBW NVNT n20 5825MHz Ant1

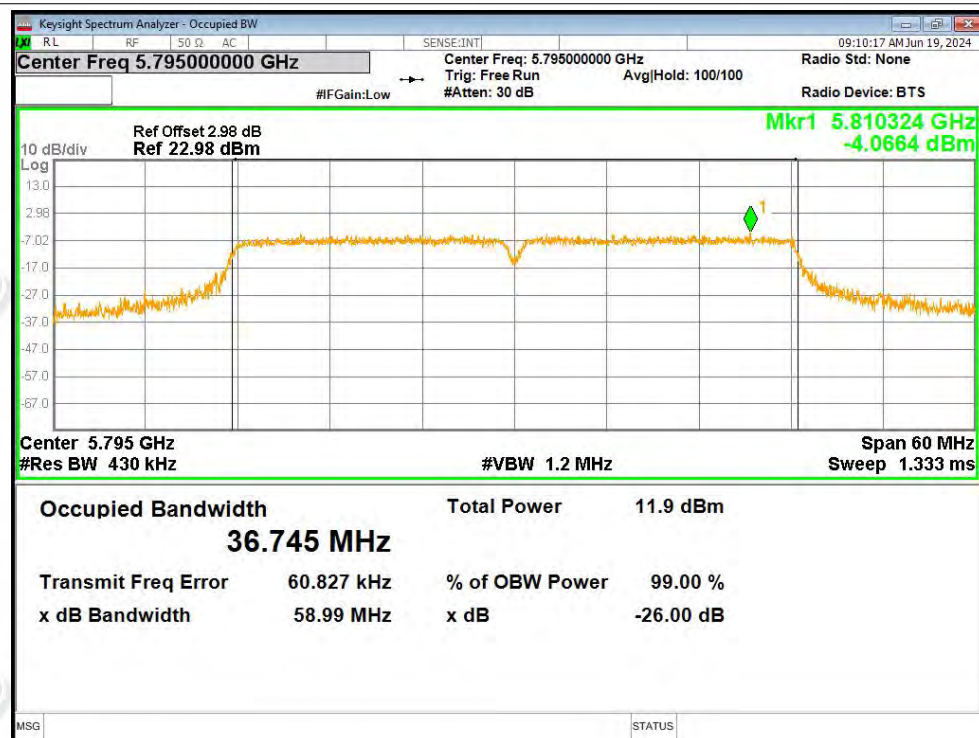




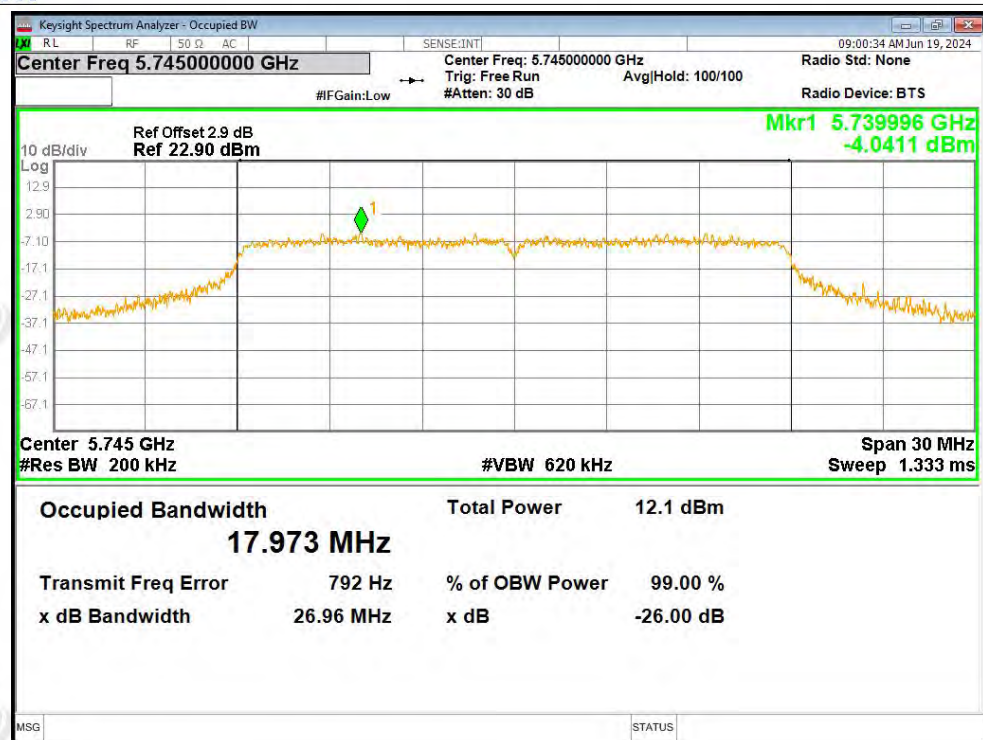
OBW NVNT n40 5755MHz Ant1



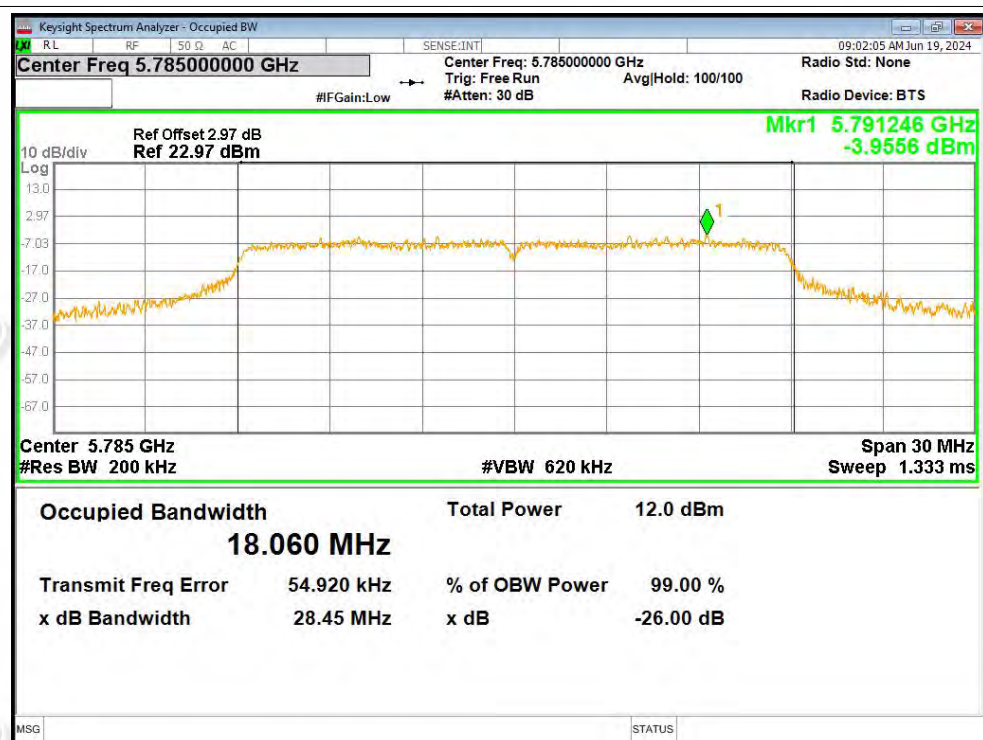
OBW NVNT n40 5795MHz Ant1



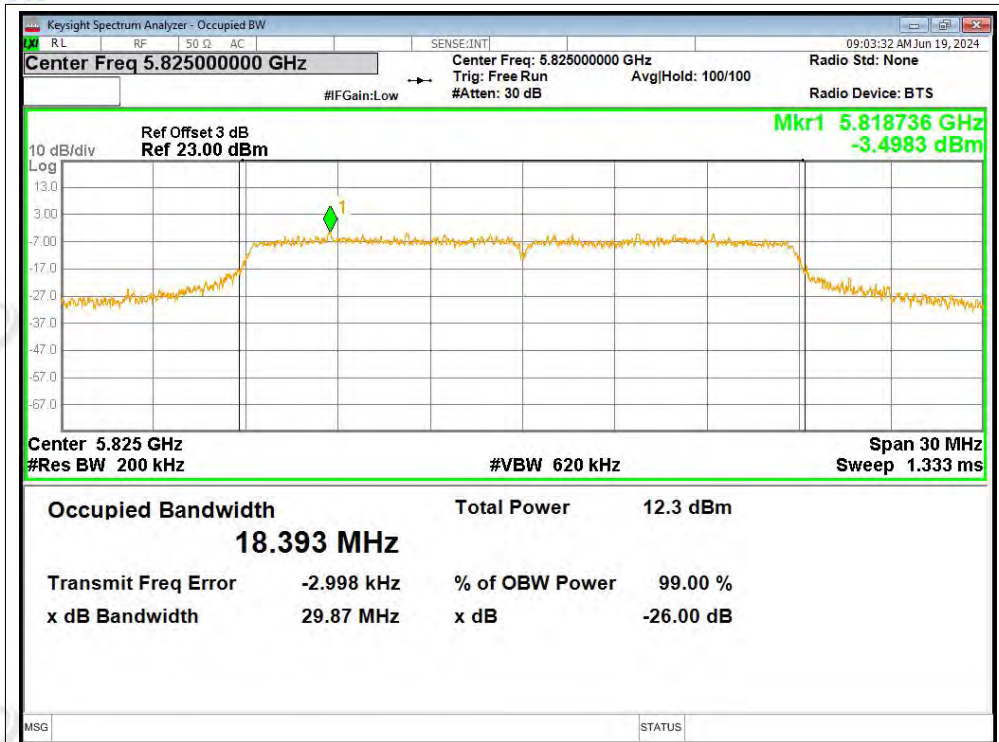
OBW NVNT ac20 5745MHz Ant1



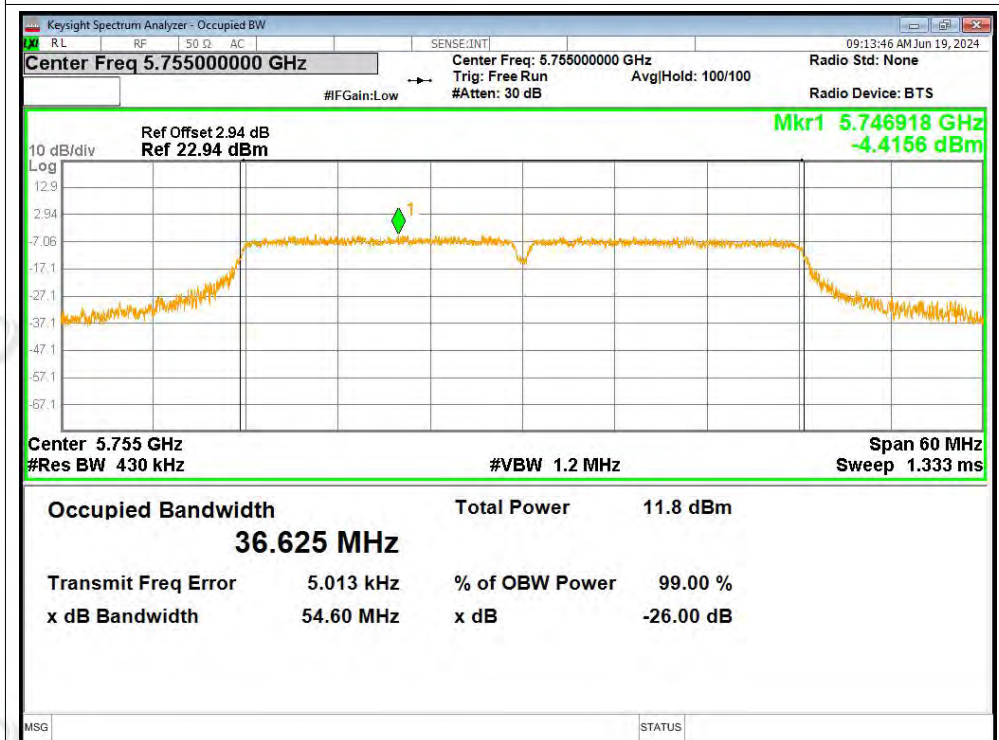
OBW NVNT ac20 5785MHz Ant1



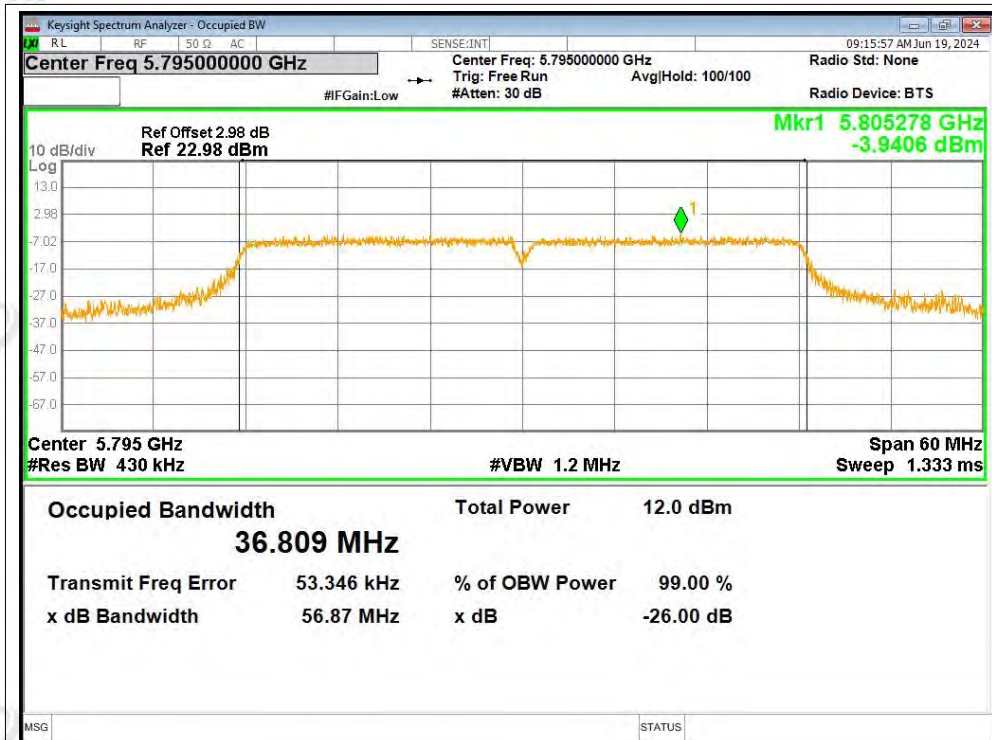
OBW NVNT ac20 5825MHz Ant1



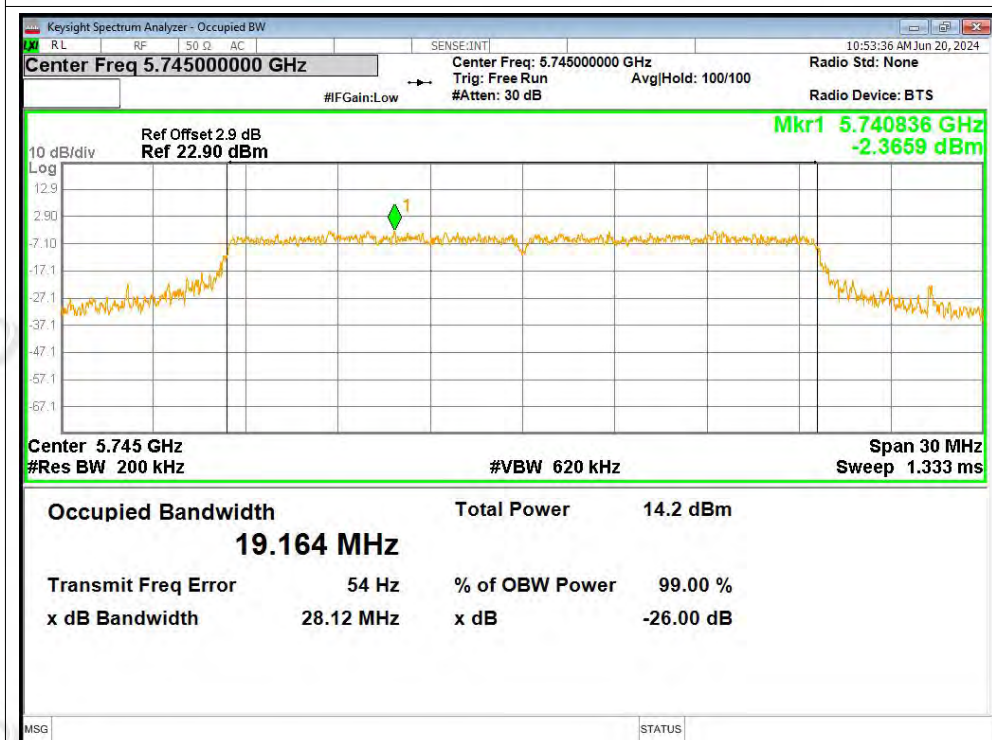
OBW NVNT ac40 5755MHz Ant1



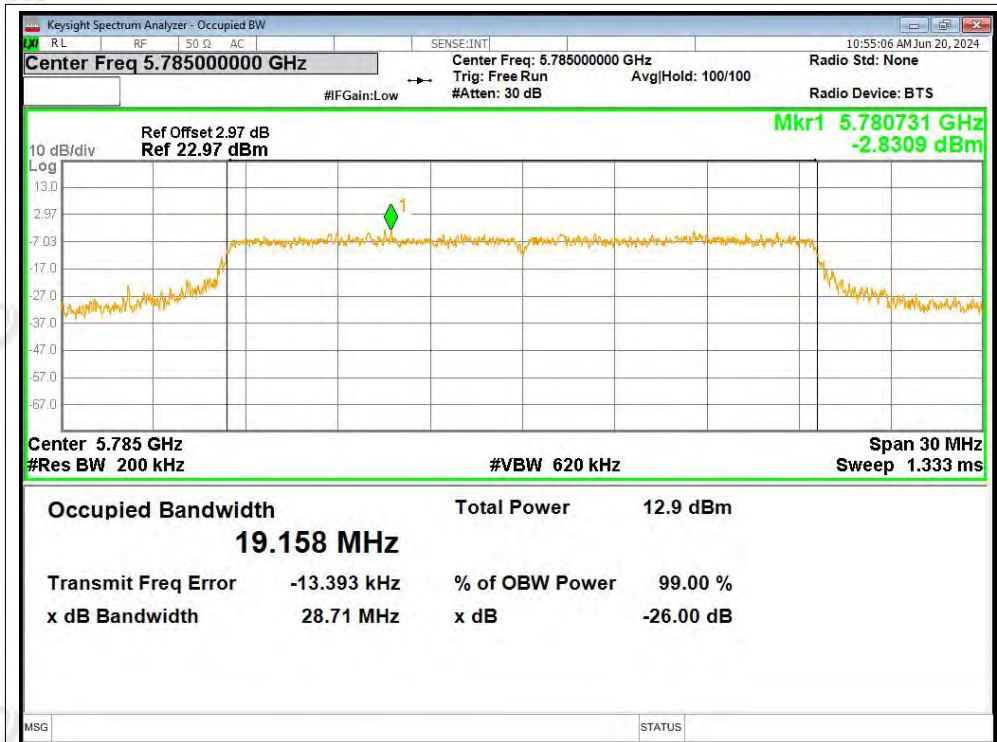
OBW NVNT ac40 5795MHz Ant1



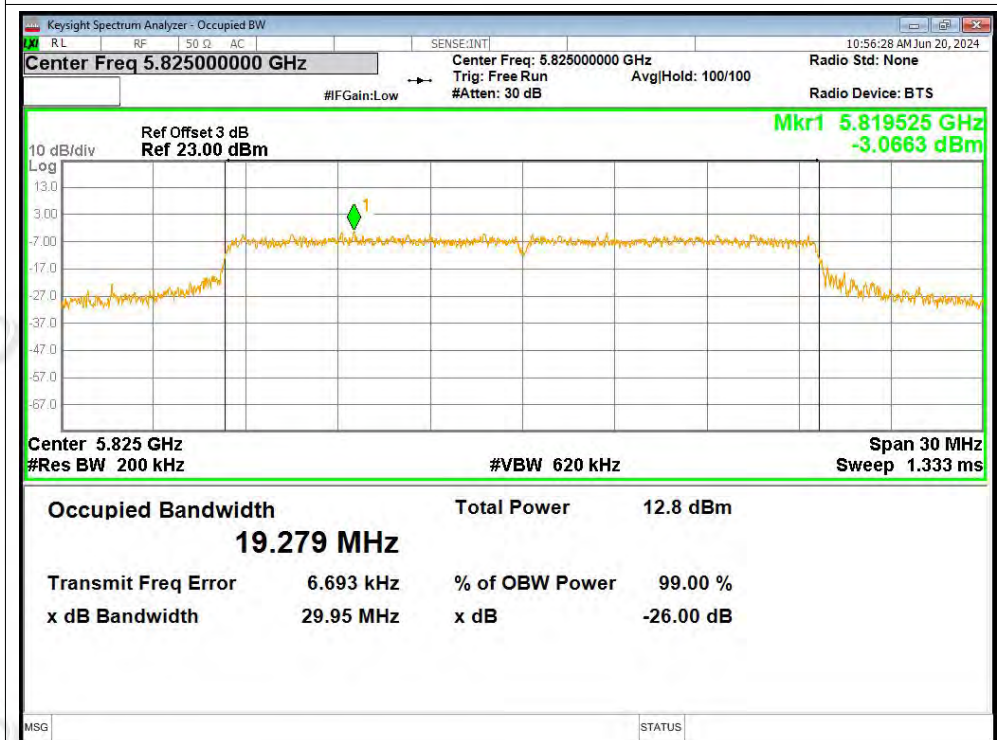
OBW NVNT ax20 5745MHz Ant1



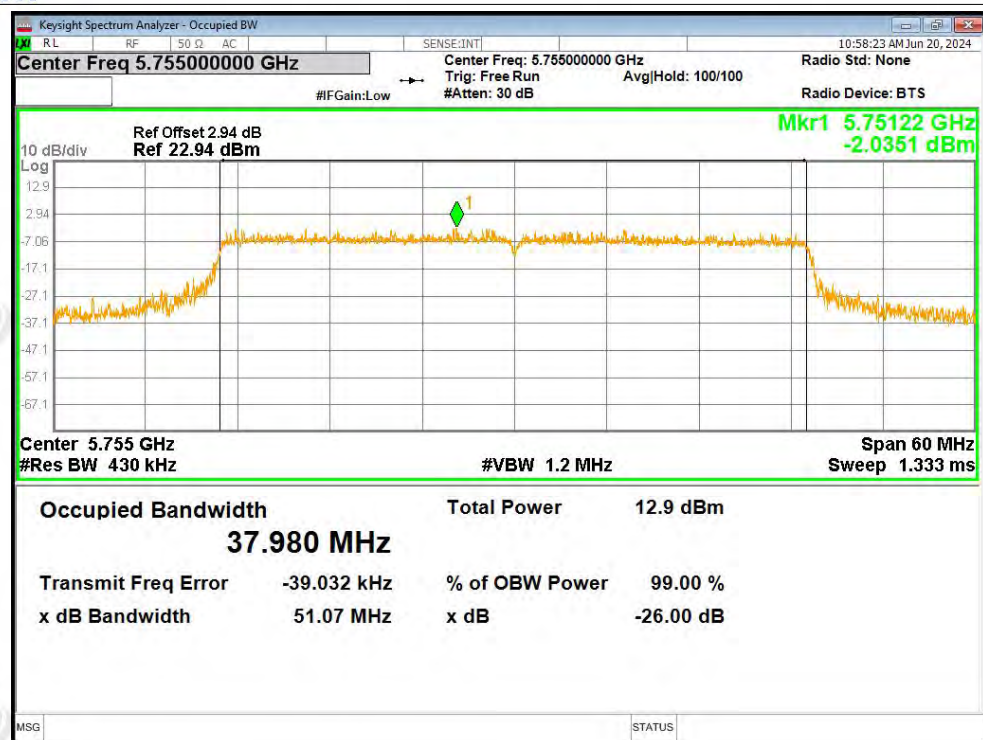
OBW NVNT ax20 5785MHz Ant1



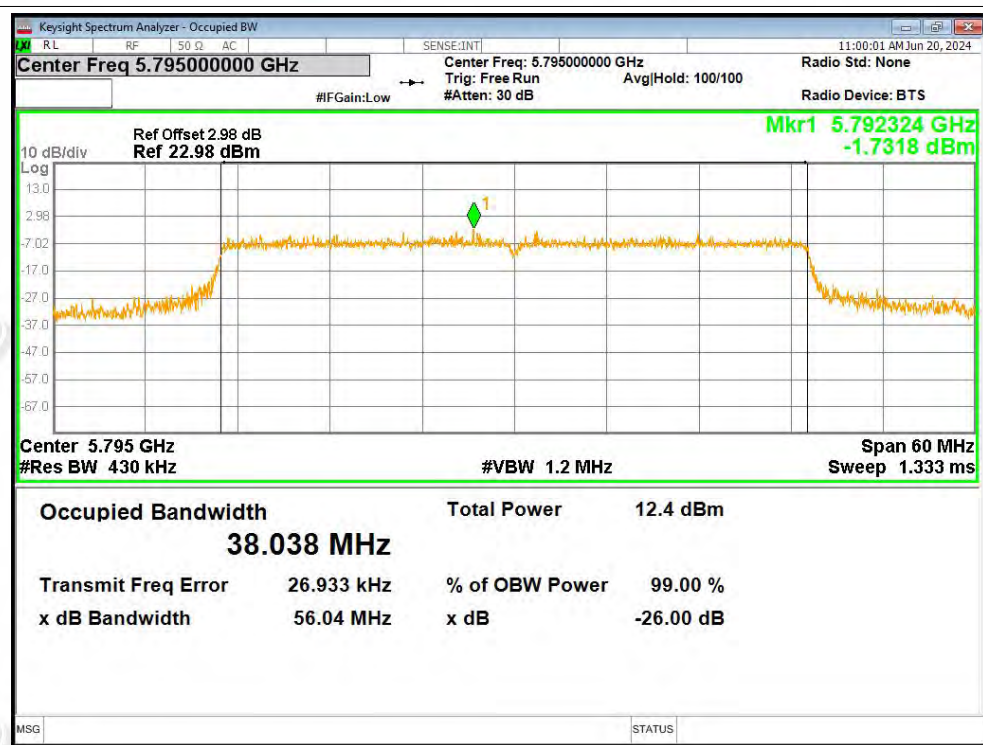
OBW NVNT ax20 5825MHz Ant1



OBW NVNT ax40 5755MHz Ant1



OBW NVNT ax40 5795MHz Ant1





Maximum Power Spectral Density Level

Condition	Mode	Frequency (MHz)	Antenna	Conducted PSD (dBm)	Duty Factor (dB)	Total PSD (dBm)	Limit (dBm)	Verdict
NVNT	a	5745	Ant1	-20.02	1.08	-18.94	30	Pass
NVNT	a	5785	Ant1	-19.47	1.58	-17.89	30	Pass
NVNT	a	5825	Ant1	-18.67	1.48	-17.19	30	Pass
NVNT	n20	5745	Ant1	-10.34	0.25	-10.09	30	Pass
NVNT	n20	5785	Ant1	-10.93	0.16	-10.77	30	Pass
NVNT	n20	5825	Ant1	-9.46	0.16	-9.3	30	Pass
NVNT	n40	5755	Ant1	-15.46	0.65	-14.81	30	Pass
NVNT	n40	5795	Ant1	-16.45	0.44	-16.01	30	Pass
NVNT	ac20	5745	Ant1	-11.94	0.24	-11.7	30	Pass
NVNT	ac20	5785	Ant1	-11.76	0.39	-11.37	30	Pass
NVNT	ac20	5825	Ant1	-11.57	0.13	-11.44	30	Pass
NVNT	ac40	5755	Ant1	-14.59	0.44	-14.15	30	Pass
NVNT	ac40	5795	Ant1	-15.73	0.68	-15.05	30	Pass
NVNT	ax20	5745	Ant1	-10.64	0.32	-10.32	30	Pass
NVNT	ax20	5785	Ant1	-10.71	0.51	-10.2	30	Pass
NVNT	ax20	5825	Ant1	-11.17	0.43	-10.74	30	Pass
NVNT	ax40	5755	Ant1	-16.78	0.69	-16.09	30	Pass
NVNT	ax40	5795	Ant1	-17.94	0.9	-17.04	30	Pass



Test Graphs

PSD NVNT a 5745MHz Ant1

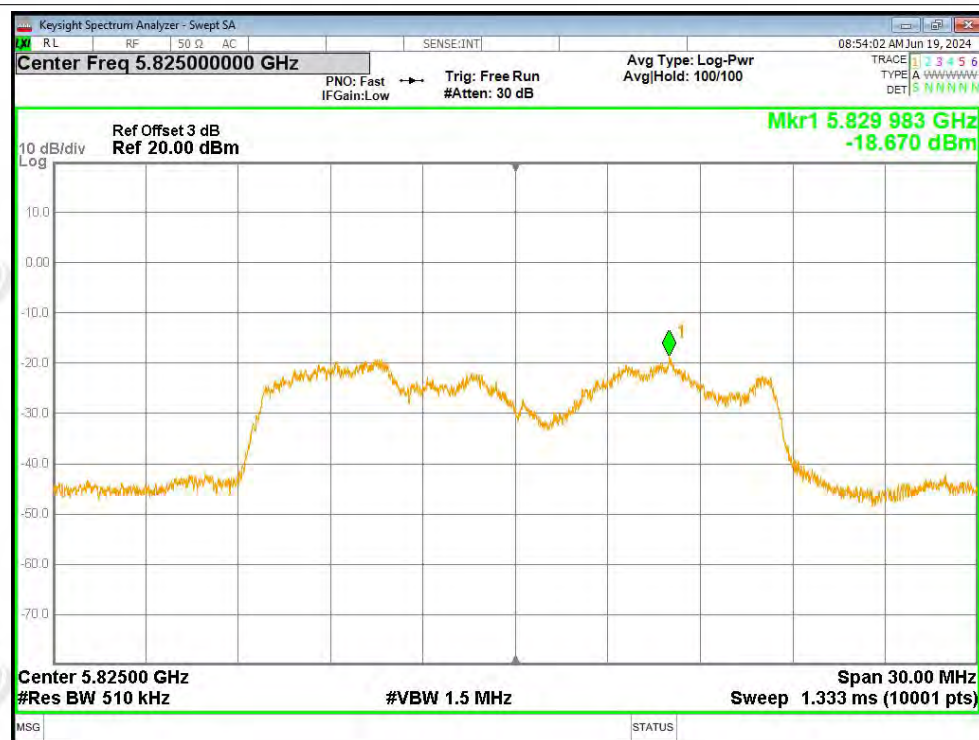


PSD NVNT a 5785MHz Ant1

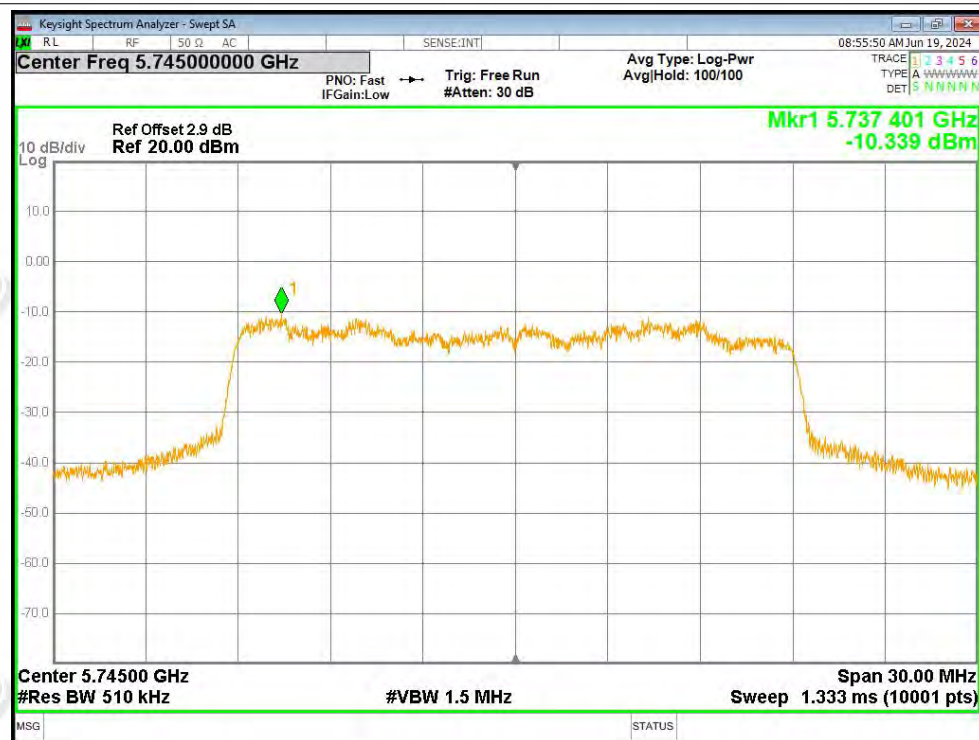


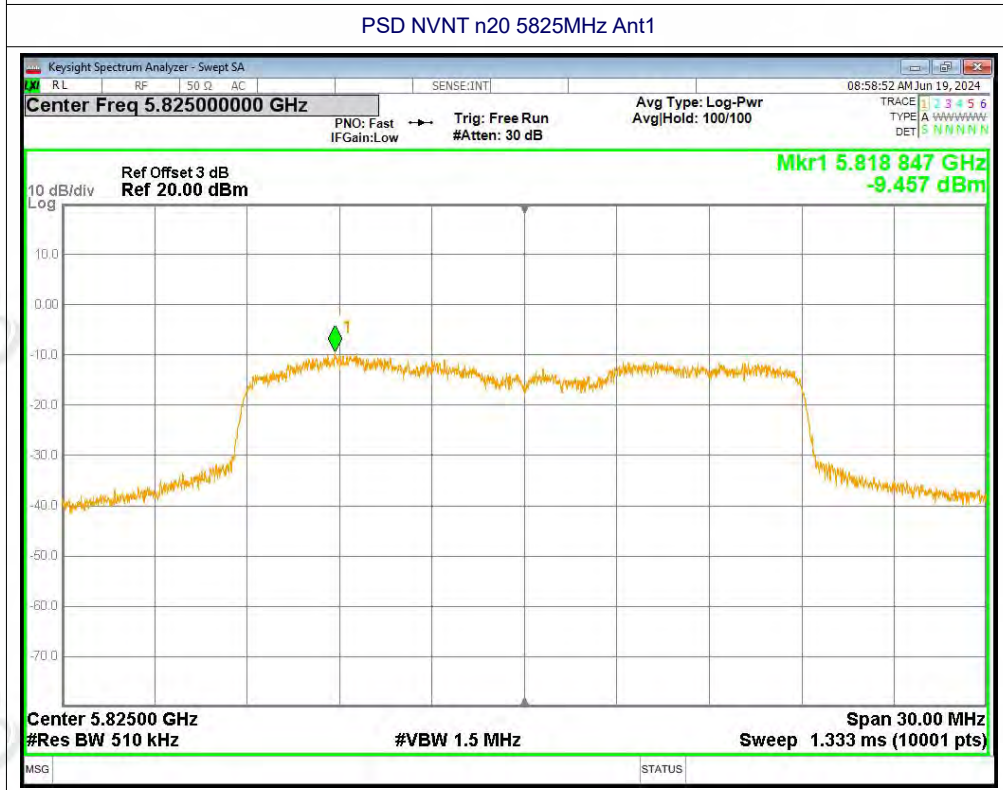
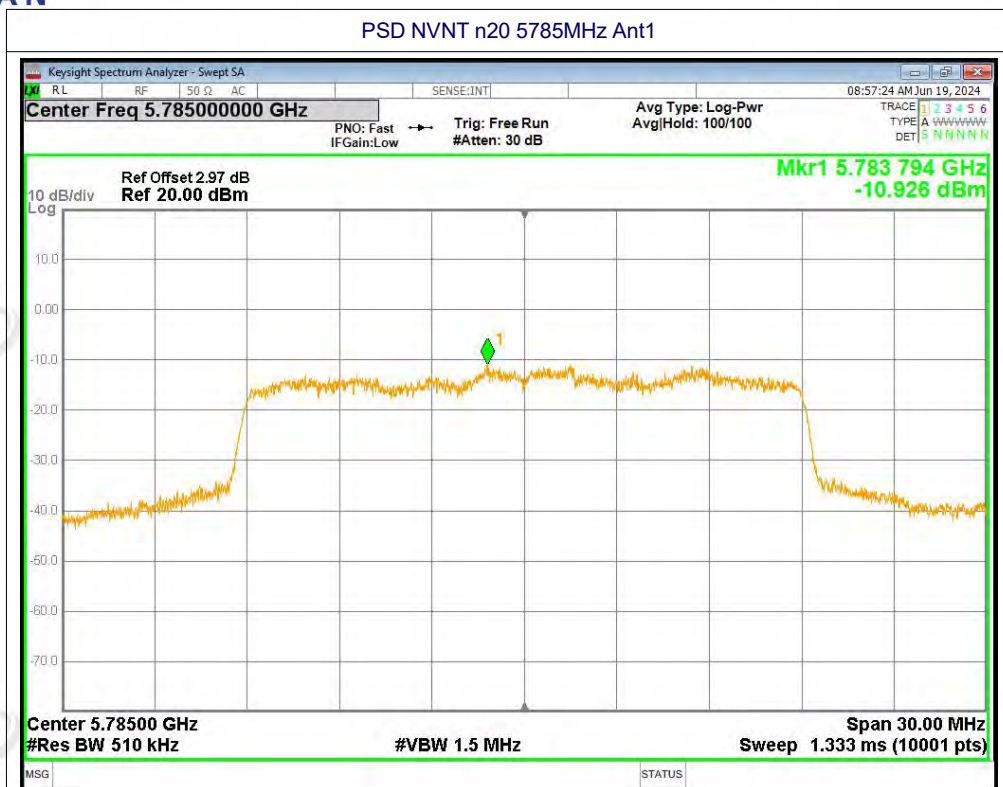


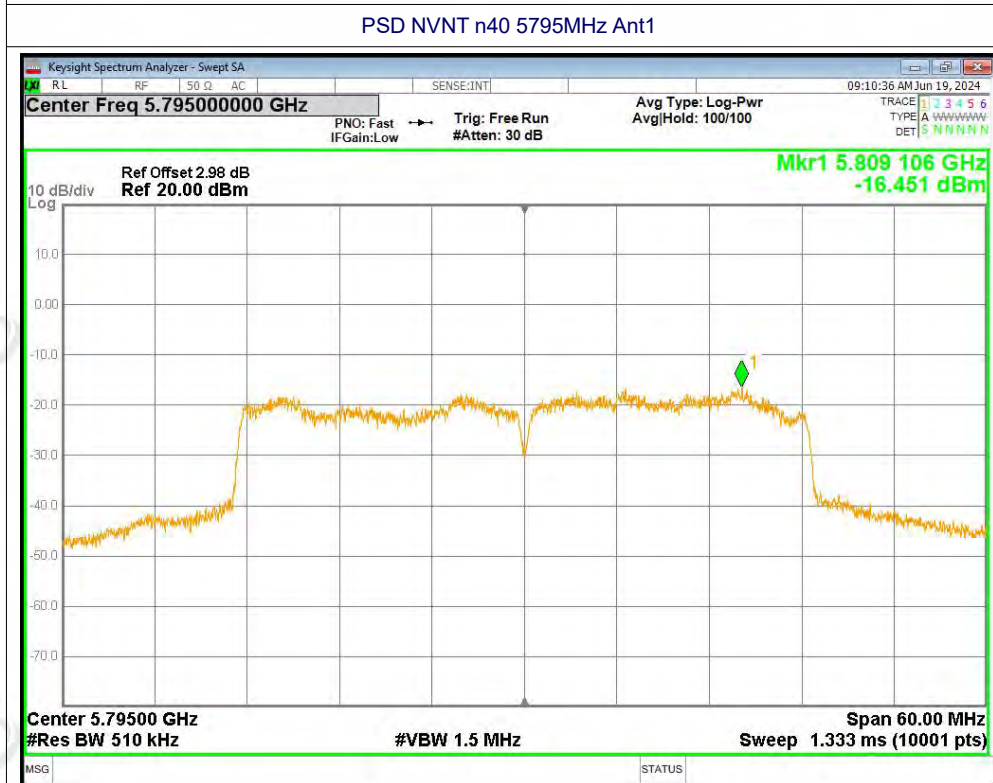
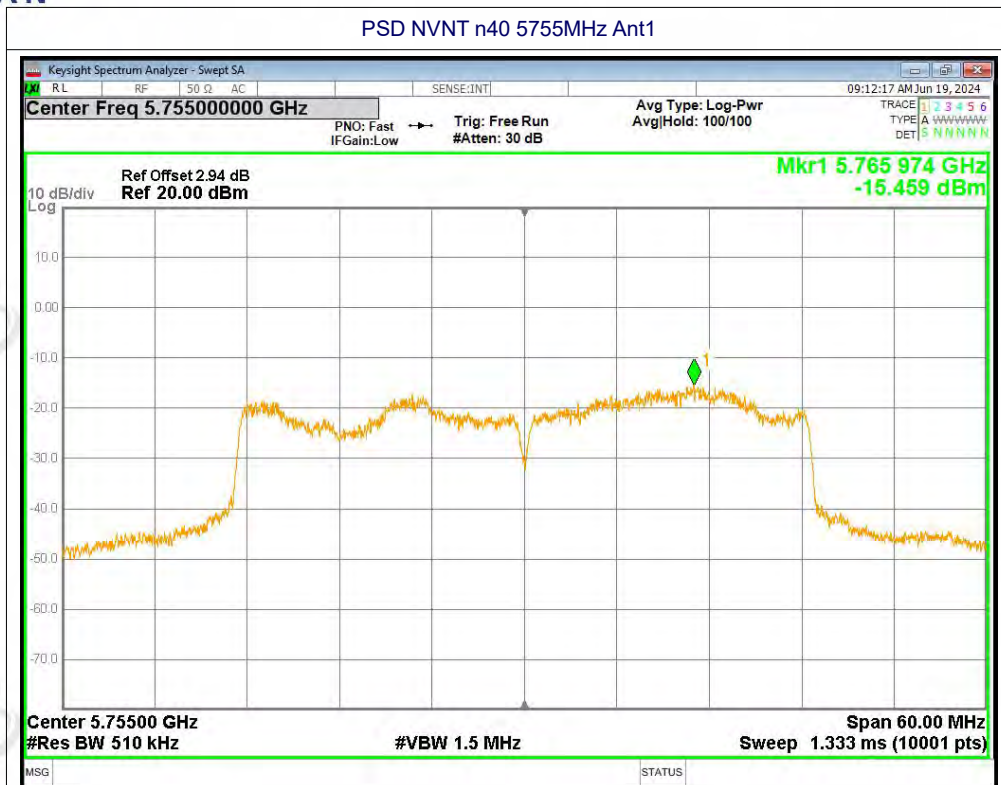
PSD NVNT a 5825MHz Ant1



PSD NVNT n20 5745MHz Ant1



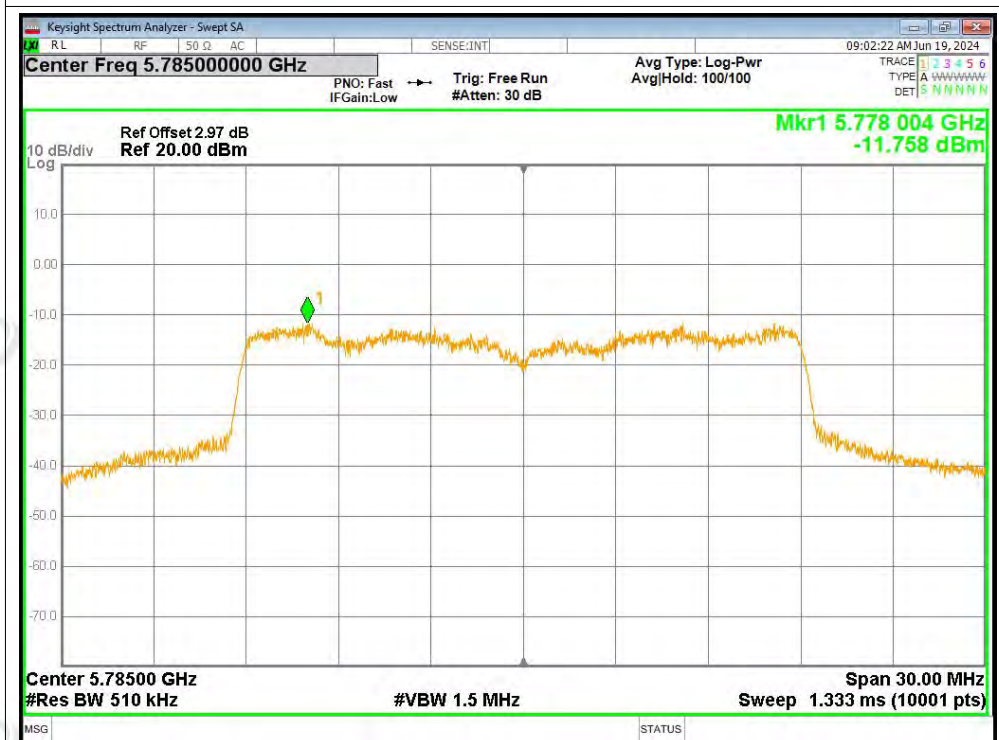




PSD NVNT ac20 5745MHz Ant1



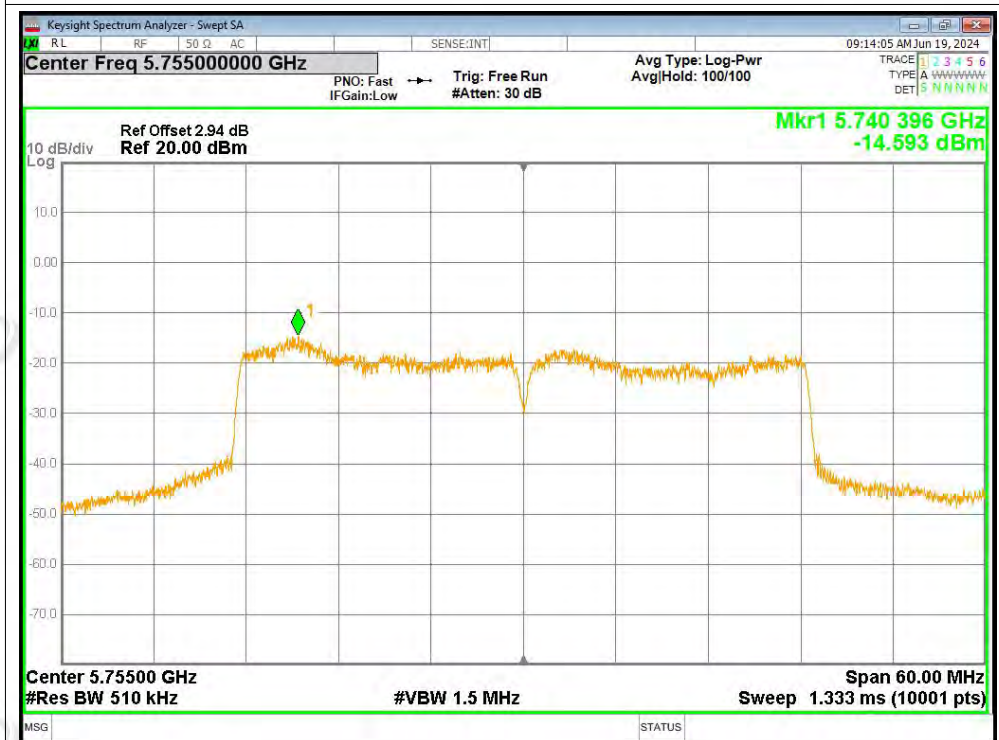
PSD NVNT ac20 5785MHz Ant1



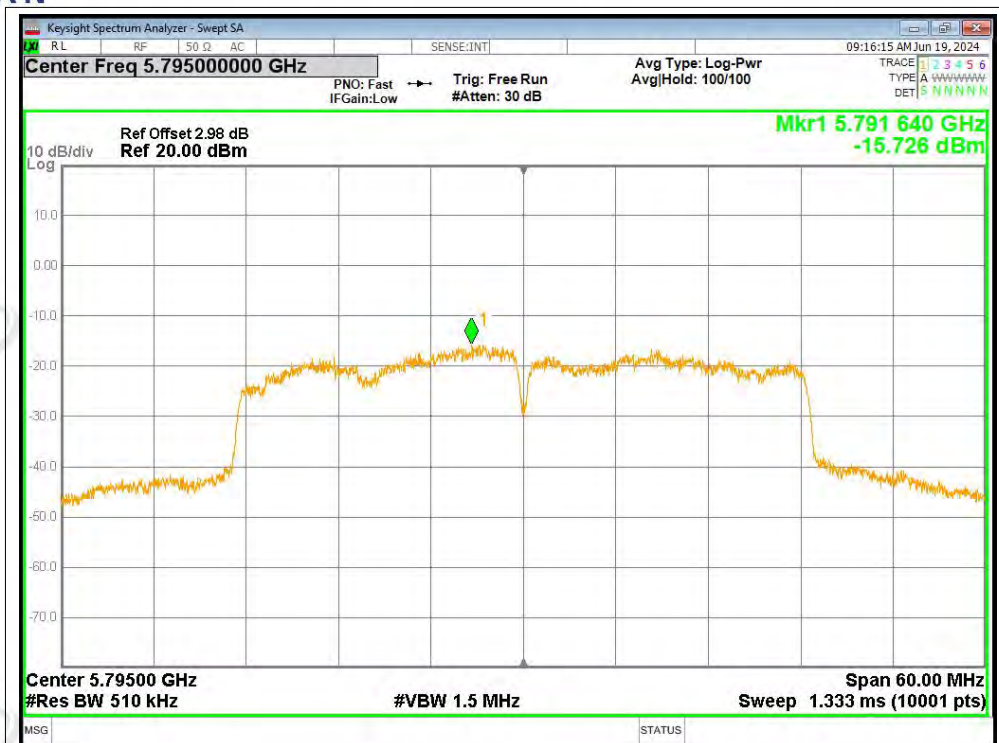
PSD NVNT ac20 5825MHz Ant1



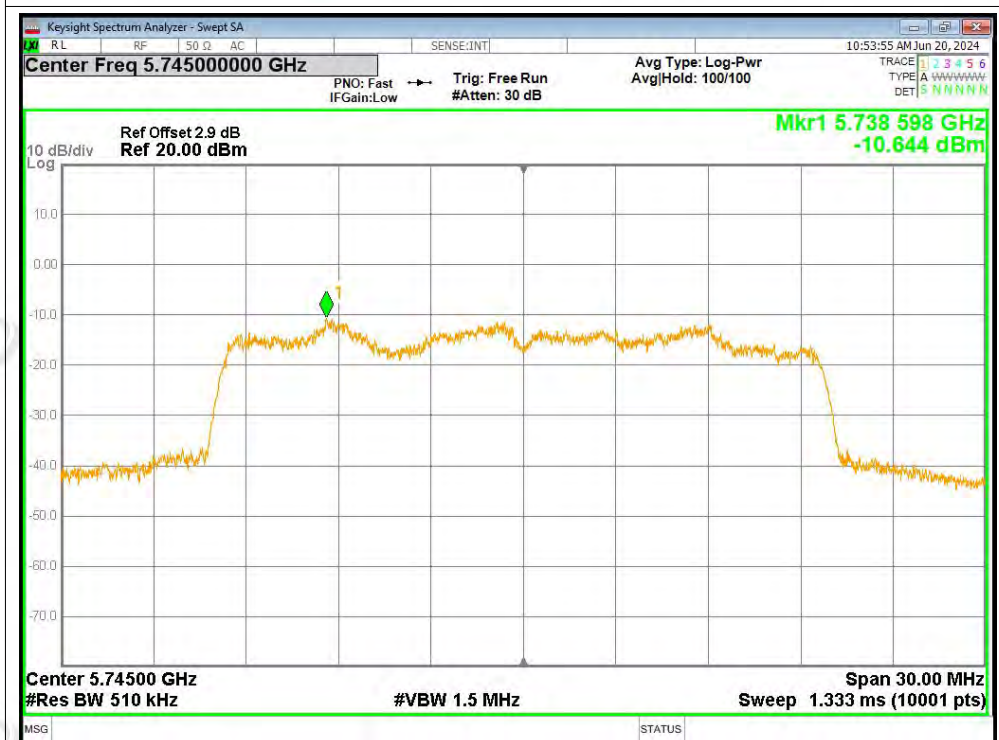
PSD NVNT ac40 5755MHz Ant1



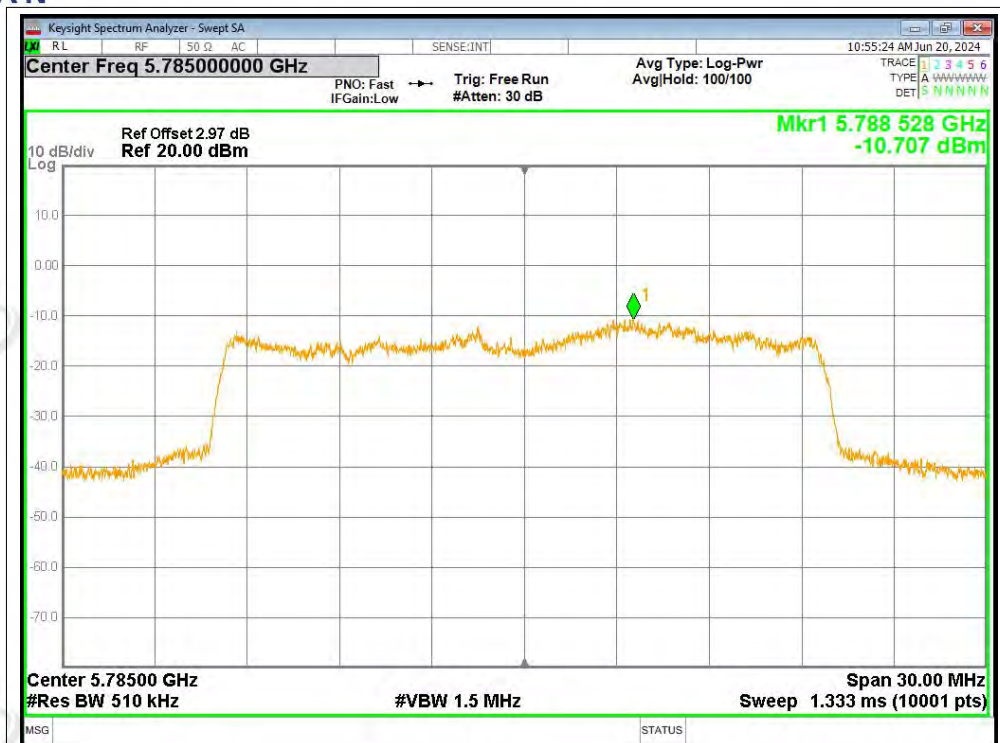
PSD NVNT ac40 5795MHz Ant1



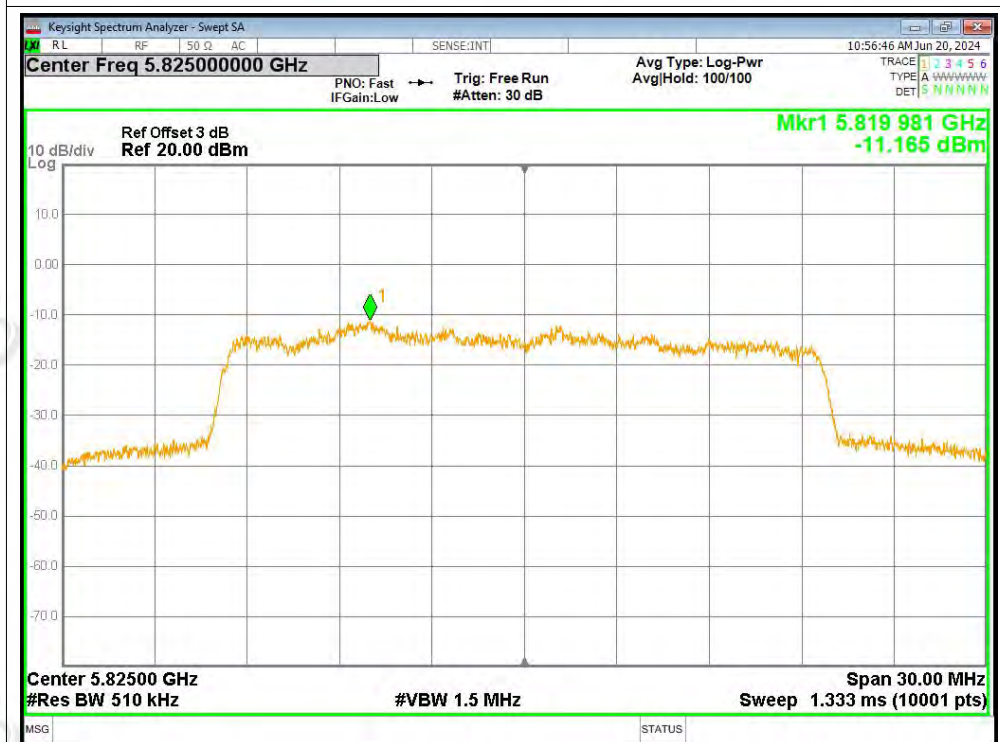
PSD NVNT ax20 5745MHz Ant1



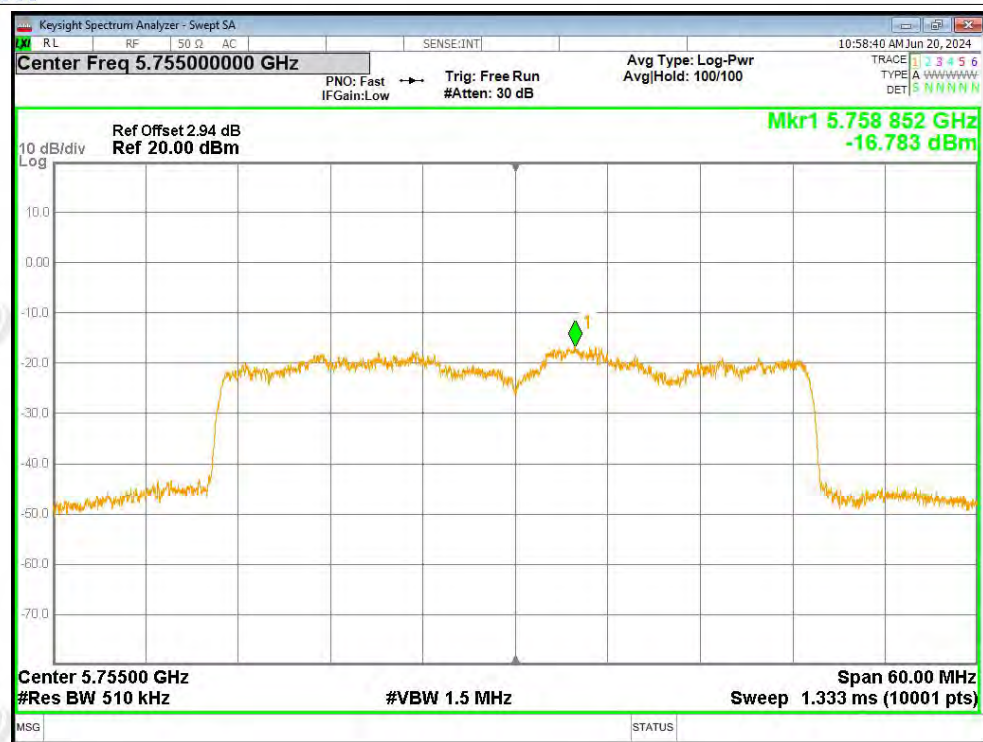
PSD NVNT ax20 5785MHz Ant1



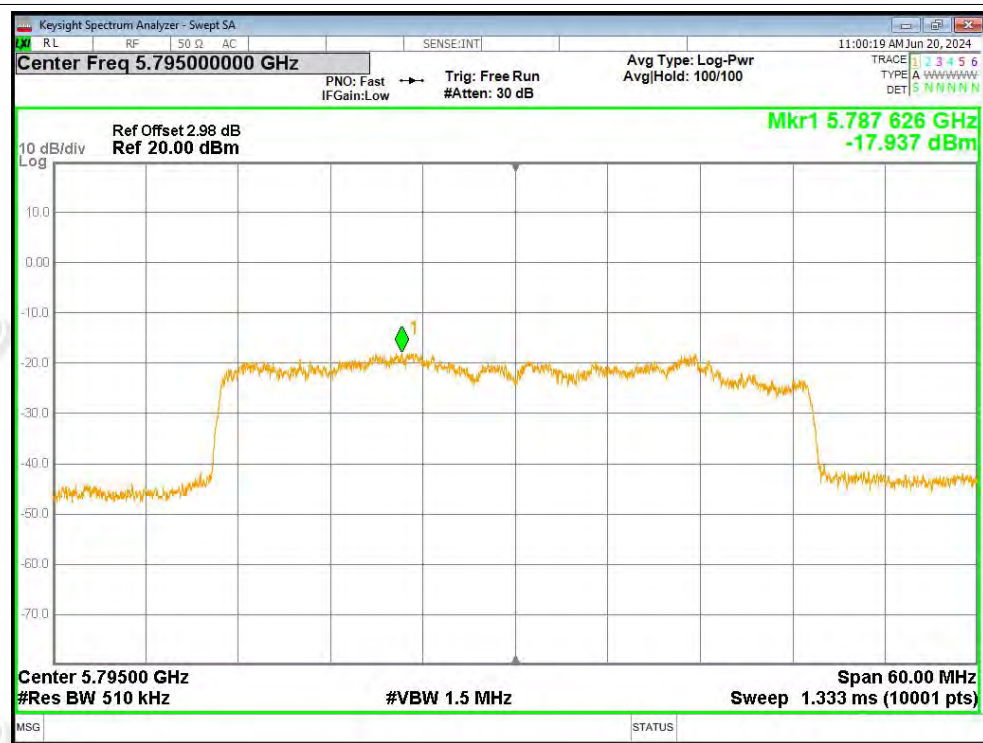
PSD NVNT ax20 5825MHz Ant1



PSD NVNT ax40 5755MHz Ant1



PSD NVNT ax40 5795MHz Ant1





Band Edge

Condition	Mode	Frequency (MHz)	Antenna	Max Value (dBm)	Verdict
NVNT	a	5745	Ant1	-31.86	Pass
NVNT	a	5825	Ant1	-36.81	Pass
NVNT	n20	5745	Ant1	-26.67	Pass
NVNT	n20	5825	Ant1	-31.31	Pass
NVNT	n40	5755	Ant1	-24.65	Pass
NVNT	n40	5795	Ant1	-36.98	Pass
NVNT	ac20	5745	Ant1	-26.13	Pass
NVNT	ac20	5825	Ant1	-32	Pass
NVNT	ac40	5755	Ant1	-24.23	Pass
NVNT	ac40	5795	Ant1	-38.24	Pass
NVNT	ax20	5745	Ant1	-19.17	Pass
NVNT	ax20	5825	Ant1	-25.52	Pass
NVNT	ax40	5755	Ant1	-23.29	Pass
NVNT	ax40	5795	Ant1	-35.47	Pass